CASSETTE RECEIVER

KRC-Z965,X838

SERVICE MANUAL

KENWOOD

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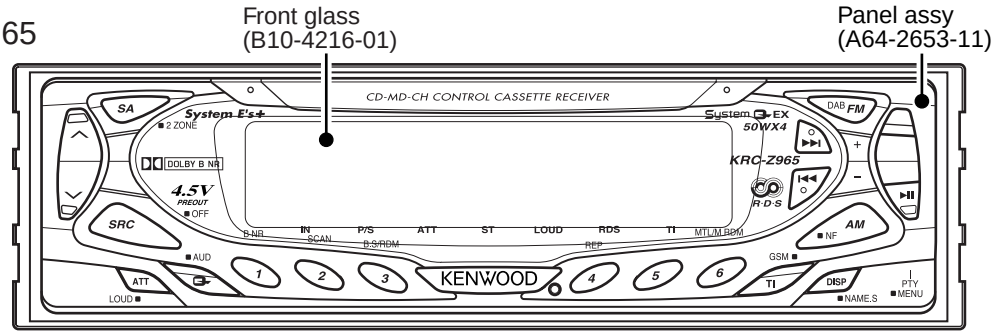
B51-7926-00 (S) 2142

●This service manual does not include information on the cassette mechanism operation description.
For such information, please refer to the cassette mechanism assembly service manual (D40-1122-05: B51-7452-00).

KRC-Z965



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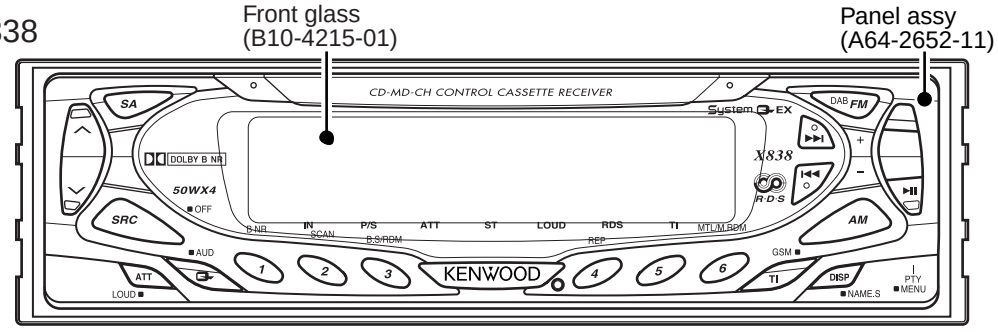

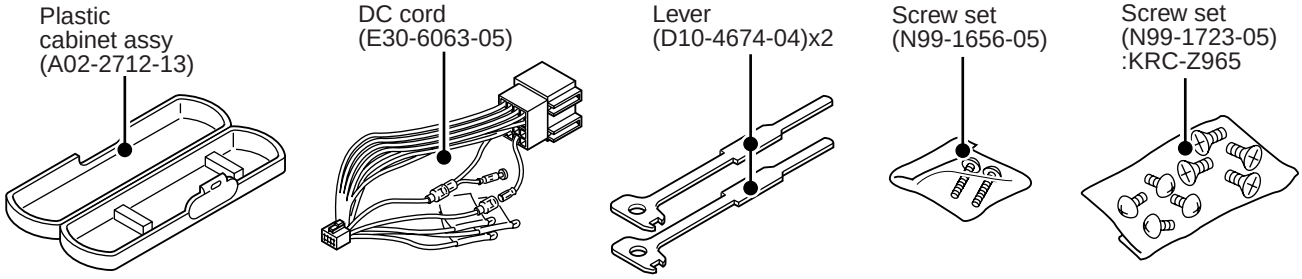

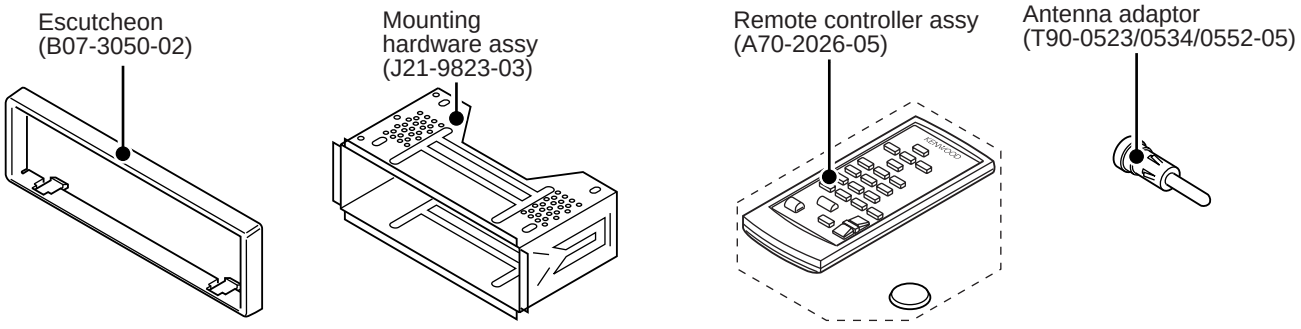

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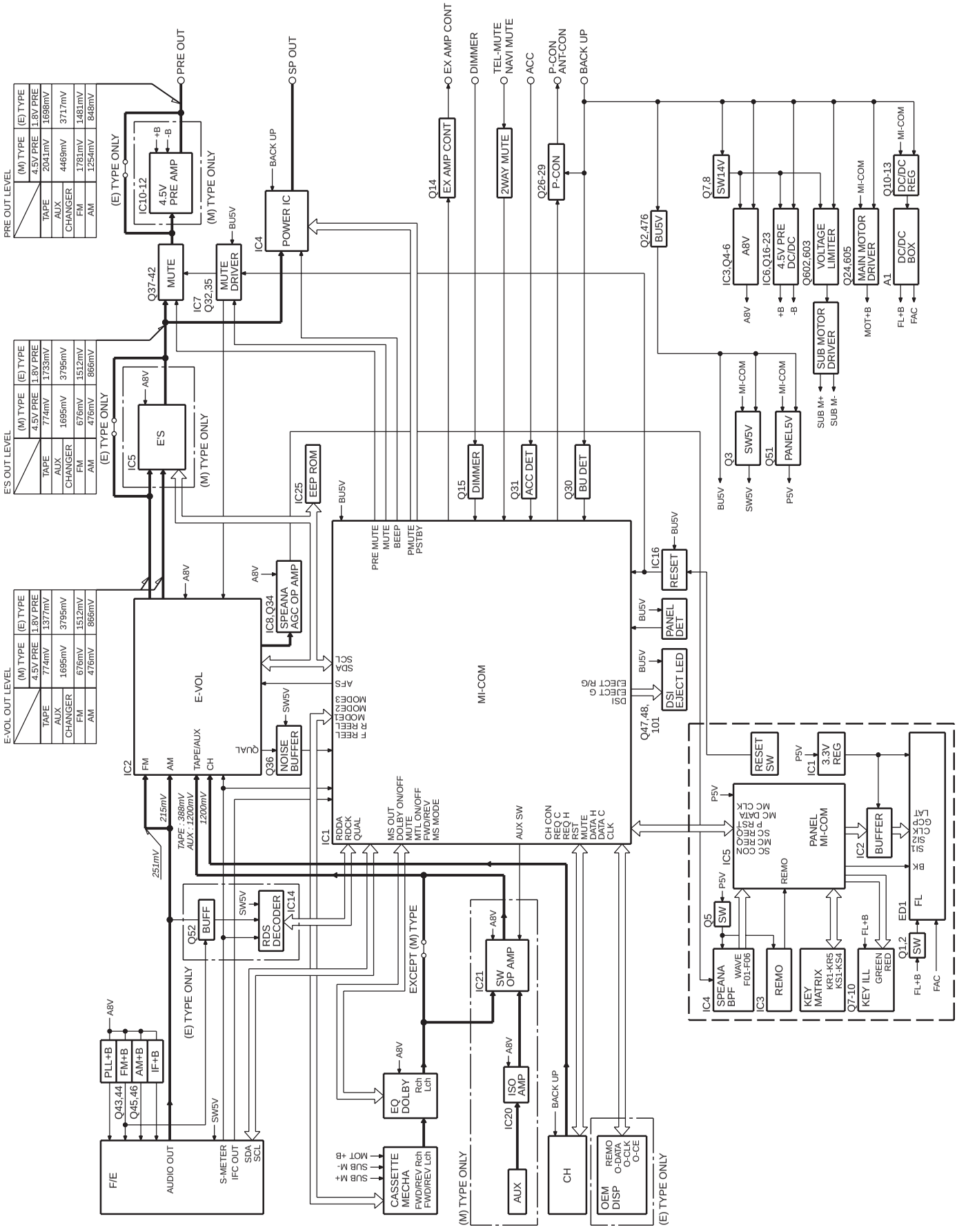
BLOCK DIAGRAM



COMPONENT DESCRIPTION

● SWITCH UNIT (X16-1682-71)

Ref.No.	Component Name	Application/Function	Operation/Condition/Compatibility
IC1	TAR5S33	FL AVR	+3.3V Output
IC2	TC74HC4050AFT	Buffer	For FL control lines, 5V → 3.3V logic level shifting
IC3	RS-171	Remote sensor IC	
IC4	BA3830F	BPF IC	BPF for the spectrum analyser indicator
IC5	UPD703032GFA04	Panel MI-COM.	
Q1	DTA144EUA or UN5113	FL+B SW	FL & Illumination AVR ON/OFF control. When Q2's base goes Hi, Q1 is turned on, and FL+B(45V) line is supplied to the FL indicator and the key illumination circuit.
Q2	DTC114YUA or UN5214		
Q3	DTA114EUA or UN5111	REMO SW	When a base goes Lo, Q3 is turned on, and PAN5V line is supplied to IC3 and IC4.
Q4	DTC114EUA or UN5211	FL blanking SW	When a base goes Hi, Q4 is turned on, and FL indicator is lit.
Q6	DTC114YK or UN2214	SRC key illumination SW	When a base goes Hi, Q6 is turned on, and SRC illumination is lit.
Q7	2SC4081	V-I converter	Current driver for green LEDs
Q8	2SC4081	V-I converter	Current driver for red LEDs
Q9	DTA114EUA or UN5111	Key illumination Red SW	When a base goes Lo, Q9 is turned on, and key illumination Red is lit.
Q10	DTA114EUA or UN5111	Key illumination Green SW	When a base goes Lo, Q10 is turned on, and key illumination Green is lit.

● ELECTRIC UNIT (X25-923X-XX)

Ref.No.	Component Name	Application/Function	Operation/Condition/Compatibility
IC1	UPD703033GFA19	System MI-COM.	
IC2	TDA7407	E-VOL.& N.C. MPX	
IC3	M5237ML	AVR IC	IC is combined with Q4, and it works as the error detection, the Q4's driver.
IC4	TDA7560	Power IC	
IC5	TDA7401	High pass filter & Non-Fader volume	HPF (Front/Rear output), LPF, Non-Fader switching and volume function
IC6	ICL7660SIBA	DC/DC converter	-9V AVR for pre-output amplifier
IC7	TC74HC02AF	Mute logic	2-input NOR x 4
IC8	NJM4565M-TE2	Op. amp.	Amplifier for the spectrum analyser and generation of Vref.(1/2Vcc) voltage
IC10	NJM4565M-TE2	Op. amp.	Amplifier for the front pre-outputs
IC11	NJM4565M-TE2	Op. amp.	Amplifier for the non-fader pre-outputs
IC12	NJM4565M-TE2	Op. amp.	Amplifier for the rear pre-outputs
IC14	TDA7479D	RDS decoder	
IC16	S-80837ANNP	Reset IC	When BU 5V voltage is less than 3.7V, IC outputs Lo.
IC20	BA3121F	Isolation amplifier	AUX inputs isolation amplifier
IC21	BA3129F	Switched op.amp.	Input switching with AUX inputs and TAPE inputs
IC22	CXA2560Q	Dolby IC	PB EQ and Dolby IC
IC25	BR24C02F-W	EEPROM	
IC26	BA6219BFP-Y	Sub motor driver	Motor driver for the sub motor of cassette mechanism
Q2	2SC4081	BU 5V AVR	While BACKUP is applied, AVR outputs +5V. Q2 and Q476 are inverted Darlington connection.
Q476	2SB1548(P)		
Q3	2SA1037K	SW 5V	While a base goes Lo, SW 5V is supplied to the microprocessor peripheral circuits.
Q4	2SA2057	A.+8V AVR	Q4 is combined with IC3, and it works as the power supply of +8.0V output.
Q5	DTC144EUA or UN5213	A.+8V AVR SW	When Q5's base goes Hi, Q6 is turned on, and A.+8V AVR is working.
Q6	DTA124EUA or UN5112		
Q7	DTA124EUA or UN5112	SW14V	When Q8's base goes Hi, Q7 is turned on, and A.+8V AVR, Voltage limiter and A.+10V AVR are working.
Q8	DTC144EUA or UN5213		
Q10	2SA2057	FL/Illumination AVR	When Q11's base goes Hi, AVR outputs +9V.
Q11	2SC4081		
Q12	DTC124EUA or UN5212	FL/Illumination AVR SW	When Q12's base goes Hi, Q13 is turned on, and FL/Illumination AVR is working.
Q13	DTA124EUA or UN5112		
Q14	DTA123JK or KRA105S	EXT. AMP CON. SW	When a base goes Lo, Q14 is turned on, and control pulse signal is outputted.
Q15	DTC144EUA or UN5213	Dimmer detection SW	When vehicle small lamps turn on, Q15's base goes Hi, and it is turned on.
Q16	2SB1443	A.+10V AVR	When Q17's base becomes Hi, AVR outputs +10V.
Q17	2SC4081		

COMPONENT DESCRIPTION

Ref.No.	Component Name	Application/Function	Operation/Condition/Compatibility
Q18	2SA1576A	PRE-AMP -9V AVR	Q18 and Q20 work as a differential amplifier, Q19 works as a driver, and -9.3V is supplied to OP AMP.
Q19	2SC4081		
Q20	2SA1576A		
Q21	2SC4081	PRE-AMP +9V AVR	Q21and Q22 work as a differential amplifier, Q23 works as a driver, and +9.7V is supplied to OP AMP.
Q22	2SC4081		
Q23	2SA1576A		
Q24	2SB1443	Main motor SW	When Q605's base goes Hi, Q24 is turned on, and BU line is supplied to the main motor.
Q605	DTC114YUA or UN5214		
Q26	2SB1277(Q,R)	P-CON SW	When Q29's base goes Hi, Q26 is turned on, and P-CON signal is outputted. Works during POWER ON mode.
Q29	DTC124EUA or UN5212		
Q27	2SA1576A	P-CON. protection SW	Protect Q26 by turning ON when P-CON output is grounded.
Q28	DTA124EUA or UN5112	P-CON. protection inhibit SW	Prevents Q27 tuning ON during start-up after power ON.
Q30	2SC4081	BU detection SW	While BACKUP is applied, a base goes Hi, and Q30 is turned on. When momentary power down has detected, a base goes Lo, and Q30 is turned off.
Q31	2SC4081	ACC detection SW	While ACC is applied, a base goes Hi, and Q31 is turned on.
Q32	DTA124EUA or UN5112	Mute driver	When BU detection SW or System RESET or MI-COM.'s MUTE is working, a base goes Lo, and Q32 is turned on.
Q34	2SC4081	AGC for spectrum analyser	
Q35	DTC124EUA or UN5212	E. VOL. mute SW	When BU detection SW or MI-COM.'s mute is working, a base goes Hi, and Q35 is turned on.
Q36	DTC143TUA or UN5216	Noise buffer	
Q37	DTC143TUA or UN5216	Audio mute SW (Front R)	When Q37's base goes Hi, Pre-output is muting.
Q38	DTC143TUA or UN5216	Audio mute SW (Front L)	When Q38's base goes Hi, Pre-output is muting.
Q39	DTC143TUA or UN5216	Audio mute SW (Non Fader L)	When Q39's base goes Hi, Pre-output is muting.
Q40	DTC143TUA or UN5216	Audio mute SW (Non Fader R)	When Q40's base goes Hi, Pre-output is muting.
Q41	DTC143TUA or UN5216	Audio mute SW (Rear R)	When Q41's base goes Hi, Pre-output is muting.
Q42	DTC143TUA or UN5216	Audio mute SW (Rear L)	When Q42's base goes Hi, Pre-output is muting.
Q43	DTC124EUA or UN5212	FM+B SW	When Q43's base goes Hi, Q44 is turned on, and A.+8V is supplied to the F/E. Works during FM reception mode or RDS reception mode.
Q44	CPH3105		
Q45	DTC124EUA or UN5212	AM+B SW	When Q45's base goes Hi, Q46 is turned on, and A.+8V is supplied to the F/E. Works during AM reception mode.
Q46	CPH3105		
Q47	DTA114YUA or UN5114	Eject green LED SW	When a base goes Lo, Q47 is turned on, and Eject green LED is lit.
Q48	DTA114YUA or UN5114	Eject red LED SW	When a base goes Lo, Q48 is turned on, and Eject red LED is lit.
Q51	2SB1427	PAN5V SW	For PAN5V on/off switching. When a base goes Lo with panel attached to the set, Q51 is turned on, and PAN5V is supplied to the panel.
Q52	DTC143TUA or UN5216	Composite signal buffer	
Q101	DTA114YUA or UN5114	DSI LED SW	When a base goes Lo, Q101 is turned on, and DSI illumination LED is lit.
Q103	DTC124EUA or UN5212	AUX/TAPE selector SW	When a base goes Hi, AUX inputs are selected. When a base goes Lo, TAPE inputs are selected.
Q602	2SB1443	Voltage limiter	When Q603's base goes Hi, Q604 is turned on, and BU line is supplied to the sub motor driver.
Q603	2SC4081		

MICROCOMPUTER'S TERMINAL DESCRIPTION

● IC5 (SWITCH UNIT : X16-1682-71)

Pin No.	Pin Name	I/O	Description	Processing Operation
1	SC DATA	I/O	Data input/output with the system MI-COM.	
2	MC CLK	I	Clock input from the system MI-COM.	
3	NC	O		Not used(N.C.)
4	DATA 1	O	Data output 1 to the FL driver IC	
5	CLK	O	Clock output to the FL driver IC	(Data shift by the rise edge of the pulse)
6	NC	O		Not used(N.C.)
7	DATA 2	O	Data output 2 to the FL driver IC	
8	CLK IN	I	Clock input from the FL driver IC	(Data shift by the rise edge of the pulse)
9	EVDD	-	Positive power supply connection terminal	Connected to P5V lines.
10	EVSS	-	Ground connection terminal	Connected to GND lines.
11	RED LED	O	Illumination red ON/OFF output in case of two colours /Illumination ON/OFF output in case of one colour	Lo: ON, Hi: OFF
12	GREEN LED	O	Illumination green ON/OFF output in case of two colours /Not used in case of one colour	Lo: ON, Hi: OFF in case of two colours /Not used(N.C.) in case of one colour
13	REMO	I	Data input from the remote control light sensor	
14	LATCH	O	Latch output to the FL driver IC	Lo: Latch, Hi: Through
15	GCP	O	Control pulse output to the FL brightness	
16	REMO ON	I/O	Power supply ON/OFF output to the remote control light sensor IC and BPF IC	Lo: ON, Hi-z: OFF
17-19	NC	O		Not used(N.C.)
20	BLK	O	Display ON/OFF control output	Lo: Display OFF, Hi: Display ON
21	TEST	I	Test terminal	Not used(Connected to GND lines)
22-33	NC	O		Not used(N.C.)
34	RESET	I	Reset terminal	Lo: Reset, Hi: Reset release
35	XT1	-	Sub clock resonator connection terminal	Not used(Pull down to GND lines)
36	XT2	-	Sub clock resonator connection terminal	Not used(N.C.)
37	REGC	-	Capacitor connection terminal for regulator inside microprocessor	
38	X2	-	Main clock resonator connection terminal	
39	X1	-	Main clock resonator connection terminal	
40	VSS	-	Ground connection terminal	Connected to GND lines.
41	VDD	-	Positive power supply connection terminal	Connected to P5V lines.
42-47	NC	O		Not used(N.C.)
48	FL +3.3V	O	FL VDD ON/OFF output	Lo: OFF, Hi: ON
49	FL+B	I/O	FL+B ON/OFF output	Hi-Z: OFF, Hi: ON
50-55	NC	O		Not used(N.C.)
56	BLUE LED	I/O	Source key LED ON/OFF output	Hi-Z: OFF, Hi: ON
57	NC	O		Not used(N.C.)
58	BVDD	-	Positive power supply connection terminal	Connected to P5V lines.
59	BVSS	-	Ground connection terminal	Connected to GND lines.
60-71	NC	O		Not used(N.C.)
72	SA RESET	O	Reset output to the BPF IC	Hi: Reset
73	NC	O		Not used(N.C.)
74	AVDD	-	A/D converter positive power supply connection terminal	Connected to P5V lines.
75	AVSS	-	A/D converter ground connection terminal	Connected to GND lines.
76	AVREF	-	A/D converter reference voltage input terminal	
77	F01	I	BPF(63Hz) input	
78	F02	I	BPF(150Hz) input	
79	F03	I	BPF(330Hz) input	
80	F04	I	BPF(1kHz) input	
81	F05	I	BPF(3.3kHz) input	
82	F06	I	BPF(10kHz) input	
83	WAVE IN	I	Audio input	
84	KR5	I	Key return 5 input	
85	KR4	I	Key return 4 input	
86	KR3	I	Key return 3 input	
87	KR2	I	Key return 2 input	

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Description	Processing Operation
88	KR1	I	Key return 1 input	
89	SC REQ	O	Communication request output to the system MI-COM.	Lo: Standby, Hi: Request
90	NC	O		Not used(N.C.)
91	SC CON	I	Control input from the system MI-COM.	Hi: Operation mode
92	NC	O		Not used(N.C.)
93	SOURCE	I	Source key input	Lo: Key OFF, Hi: Key ON
94	VREF CON	O	A/D converter reference voltage control output	Hi: Active, Connected to AVREF terminal
95	MC REQ	I	Communication request input from the system MI-COM.	Hi: Request
96	KS4	I/O	Key scan output 4	
97	KS3	I/O	Key scan output 3	
98	KS2	I/O	Key scan output 2	
99	KS1	I/O	Key scan output 1	
100	MC DATA	I	Data input from the system MI-COM.	

● IC1 (ELECTRIC UNIT : X25-923X-XX)

Pin No.	Pin Name	I/O	Description	Processing Operation
1	MC DATA	I/O	Data input/output with the panel MI-COM.	
2	MC CLK	O	Clock output to the panel MI-COM.	
3	DSI GUIDE	I/O	DSI control output	Lo: DSI ON, Hi-Z: DSI OFF Lights on at the panel tilted during POWER ON mode. Flashing at the panel detached during POWER ON mode.
4	$\overline{\text{EJECT KEY G}}$	O	Eject key illumination green control output	Lo: ON, Hi: OFF Lights on at the panel tilted during POWER ON mode in case of the key illumination green.
5	$\overline{\text{EJECT KEY R}}$	O	Eject key illumination red control output	Lo: ON, Hi: OFF Lights on at the panel tilted during POWER ON mode in case of the key illumination red.
6	$\overline{\text{MC REQ/FLIP}}$	I/O	Communication request output to the panel MI-COM. /Flip detection input	Hi: Request /Lo: Panel detached, Hi: Panel attached
7	IC2 SDA	I/O	Data input/output with IC2, IC5, and IC25	
8	IC2 SCL	I/O	Clock input/output with IC2, IC5, and IC25	
9	EVDD	-	Positive power supply connection terminal	Connected to BU 5V lines.
10	EVSS	-	Ground connection terminal	Connected to GND lines.
11	$\overline{\text{PAN RESET}}$	O	Reset output to the panel MI-COM.	Lo: Reset or Momentary power down detected
12	BEEP	O	BEEP output	
13	REMO	I	Data input from the wired remote control	
14	SVR	O	SVR output	Not used(N.C.)
15	$\overline{\text{DIMMER}}$	I	Small lights detection input	Lo: During vehicle small lamps turn on.
16	PLL DATA	I/O	Data input/output with F/E	
17	PLL CLK	I/O	Clock input/output with F/E	
18	P STBY	O	POWER IC STBY output	Lo: Power IC OFF, Hi: Power IC ON or ALL OFF mode
19	P CON	I/O	P-CON output	Hi-Z: POWER OFF mode or ALL OFF mode, Hi: POWER ON mode
20	ANT CON	O	ANT-CON output	Not used(N.C.)
21	TEST	-	Test terminal	Not used(Connected to GND lines)
22	$\overline{\text{P MUTE}}$	O	POWER IC mute output	Lo: Muting (during POWER OFF, ALL OFF, TEL MUTE)
23	$\overline{\text{PAN5V}}$	I/O	Panel 5V control output	Lo: Panel attached normally, Hi-Z: Panel detached or tilted
24	$\overline{\text{EXT AMP CONT}}$	O	External amp. control output (in 200msec)	Bass boost OFF__Hi: 160msec, Lo: 40msec Bass boost LOW__Hi: 130msec, Lo: 70msec Bass boost HI__ Hi: 100msec, Lo: 100msec
25	DOLBY	O	DOLBY ON/OFF switching output	Lo: Dolby NR OFF, Hi: Dolby NR ON
26	MUSIC	I	Music blank detection input	Lo: Music signal detected, Hi: Music signal not detected
27	$\overline{\text{BU DET}}$	I	Momentary power down detection input	Lo: BU ON, Hi: When momentary power down detected or BU OFF
28	$\overline{\text{ACC DET}}$	I	ACC detection terminal	Lo: ACC ON, Hi: ACC OFF
29	$\overline{\text{SW5V}}$	I/O	SW5V control terminal	Lo: SW5V ON, Hi-Z: SW5V OFF

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Description	Processing Operation
30	MUTE	I/O	MUTE output	Lo: Muting OFF, Hi-Z: Muting ON
31	O CE	I/O	External display CE terminal	
32	O CLK	I/O	External display clock terminal	
33	O DATA	I/O	External display data terminal	
34	$\overline{\text{RESET}}$	I	Reset input	Lo: System reset , Hi: Normal operation
35	XT1	I	Sub clock resonator connection terminal	Clock count during POWER OFF mode
36	XT2	-	Sub clock resonator connection terminal	
37	REGC	-	Capacitor connection terminal for regulator inside microprocessor	
38	X2	-	Main clock resonator connection terminal	Oscillation: POWER ON mode, Oscillation stop: POWER OFF mode or momentary power down detected
39	X1	I	Main clock resonator connection terminal	
40	VSS	-	Ground connection terminal	Connected to GND lines.
41	VDD	-	Positive power supply connection terminal	Connected to BU 5V lines.
42	CLKOUT	O	Internal system clock output	Not used(N.C.)
43	SUB	O	Sub motor control output	
44	SUB+	O	Sub motor control output	
45	$\overline{\text{PRE MUTE}}$	O	Pre-out muting control output	Lo: Momentary power down detected, Hi: Fix in the case of 2 zone mode
46	NC	O		Not used(N.C.)
47	MOTOR	I/O	Cassette mechanism main motor control output	Hi-Z: Motor stopped, Hi: Motor running
48	$\overline{\text{MTL}}$	O	Normal/METAL switching control output	Lo: METAL, Hi: Normal
49	EQ MUTE	O	EQ muting switching output	Lo: Tape play mode, Hi: Tape FF/REW, Hi: Except Tape mode
50	AFS	O	Noise detection time constant switching terminal	Lo: During FM seek or AF search, Hi: During FM reception, Hi: Last FM with RDS model
51	AM+B	I/O	AM+B control output	Hi: During AM reception
52	FM+B	I/O	FM+B control output	Hi: During FM reception, Hi: Last FM reception
53	R QUAL	I	Quality input from the RDS decoder IC	Except RDS model: Not used(Pull down to GND lines)
54	R DATA	I	Data input from RDS decoder IC	Except RDS model: Not used(Pull down to GND lines)
55	IC2TYPE0	I	IC2 setting terminal 0	Lo: Initial value(Default)
56	IC2TYPE1	I	IC2 setting terminal 1	Lo: Initial value(Default)
57	P ON	I/O	SW14V control output	Hi-Z: POWER OFF mode, Hi: POWER ON mode
58	BVDD	-	Positive power supply connection terminal	Connected to BU 5V lines.
59	BVSS	-	Ground connection terminal	Connected to GND lines.
60	TYPE	I	Destination type setting terminal	Lo: E type, Hi: M type
61	E2PDET	I	EEPROM detection input	Lo: No EEPROM, Hi: With EEPROM
62,63	NC	O		Not used(N.C.)
64	AUX SW	O	TAPE/AUX input switching output	Lo: Except AUX input, Hi: AUX input
65	ILL ON	I/O	FL/Illumination AVR ON/OFF control output	Hi-Z: AVR OFF, Hi: AVR ON
66	F/R	O	TAPE EQ input switching output	Lo: Tape FWD input, Hi: Tape REV input
67	MSC	O	Music blank detection constant switching output	Lo: Tape FF/REW mode, Hi: Tape PLAY mode, Lo: Except Tape mode
68	MODE1	I	Cassette mechanism mode detection input 1	
69	MODE2	I	Cassette mechanism mode detection input 2	
70	CH CON	O	Changer control output	Lo: Standby mode, Hi: Operation mode
71	CH RST	O	Reset output to changers	⎍ : Reset
72	$\overline{\text{CH REQH}}$	O	Communication request output to changers	Lo: Request
73	AVCONT	O	A/D converter reference voltage control output	Hi: Active, Connected to AVREF terminal
74	AVDD	-	A/D converter positive power supply connection terminal	Connected to BU 5V lines.
75	AVSS	-	A/D converter ground connection terminal	Connected to GND lines.
76	AVREF	I	A/D converter reference voltage input terminal	
77	IFC OUT	I	Input terminal from F/E IFC OUT	Hi: Station detected (Vth=2.5V)
78	S METER	I	S-meter input from F/E	
79	NOISE	I	FM noise detection input	
80	F REEL	I	FWD reel pulse input from the cassette mechanism	Hi: Reel pulse detected (Vth ≧ 2.5V)
81	R REEL	I	REV reel pulse input from the cassette mechanism	Hi: Reel pulse detected (Vth ≧ 2.5V)
82-85	NC	I		Not used(Pull down to GND lines)

MICROCOMPUTER'S TERMINAL DESCRIPTION

Pin No.	Pin Name	I/O	Description	Processing Operation
86	PANEL DET	I	Panel detection input	Lo: Panel attached, Hi: Panel detached
87	CH MUTE	I	Mute request from changers	Hi: Mute request
88	PHONE	I	PHONE detection input	1V or less: TEL MUTE, 2.5V or greater: NAVI MUTE
89	SC CON	O	Panel MI-COM. control output	Hi: Operation mode
90	NC	O		Not used (N.C.)
91	MODE3	I	Cassette mechanism mode detection input 3	
92	NC	O		Not used (N.C.)
93	R CLK	I	Clock input from RDS decoder IC	Except RDS model: Not used (Pull down to GND lines)
94	CH REQC	I	Communication request input from changers	Lo: Request
95	EJECT	I	EJECT key detection input	Lo: When EJECT key is pressed
96	SC REQ	I	Communication request input from the panel MI-COM.	Hi: Request
97	CH DATAC	I	Data input from changers	
98	CH DATAH	O	Data output to changers	
99	CH CLK	I/O	Clock input/output with changers	
100	SC DATA	I	Data input from the panel MI-COM.	

TEST MODE

1. How to enter the test mode

While pressing and holding the Preset 1 and Preset 3 keys, reset the unit.

2. How to exit from the test mode

Reset the unit, ACC OFF, power OFF and Panel detached.
(Note) The test mode cannot be terminated by momentary power down.

3. Initial status in the test mode

- Sources : ALL OFF
- Display : All segments are lit.
- Volume : –10 dB (displayed as "30")
- Loudness : OFF
- CRSC : OFF regardless of the presence of switching function.
- SYSTEM Q : Flat
- BEEP : When pressing any keys, the buzzer generates a beep at any time.

4. Special display in Tuner mode

When any of the following messages is displayed in Tuner mode, the F/E may be abnormal.

- "TNE2P NG": The EEPROM is set to the default (unstable values) because the F/E was shipped without passing through the adjustment process, etc.
- "TNCON NG": Communication with the F/E is not possible.

5. Forced switching of K3I

Each press of the Preset 6 key in Tuner mode should switch K3I from AUTO → Forced Wide → Forced Middle → Forced Narrow → AUTO.
The initial status is AUTO and the display shows these modes as follows.

- AUTO : FMA
- Forced Wide : FMW
- Forced Middle : FMM
- Forced Narrow : FMN

6. Audio-related specifications

- A short press of the Q key initiates the audio adjustment mode.
- Pressing the ∗ key on the remote initiates the audio adjustment mode.
- Fader is selected to the initial item.
- Continuous holding of a remote control key is inhibited.
- Bass, Middle and Treble are adjusted in 3 steps of Min / Center / Max with the Track Up/Down keys.
- Balance is adjusted in 3 steps of Left Max / Center / Right Max with the Track Up/Down keys.
- Fader is adjusted in 3 steps of Rear Max / Center / Front Max with the Track Up/Down keys.
- HPF is adjusted in 2 steps of Through / 220Hz with the Track Up/Down keys.
- LPF is adjusted in 2 steps of Through / 120Hz with the Track Up/Down keys.
- Bass f, Bass Q, Bass EXT, Middle f, Middle Q and Treble f are not dealt with by the audio adjust.

7. Menu-related specifications

- Pressing the DNPP/SBF key on the remote initiates the Menu mode.
- Continuous holding of a remote control key is inhibited.
- In the case of the cassette receiver model, A short press of the TI key initiates the Menu mode.

8. Backup current measurement

When the unit is reset while ACC is OFF (i.e. by turning Backup ON), the MUTE terminal goes OFF in 2 seconds in place of 15 second. (The CD mechanism is not activated at this time.)

9. Special display when the display is all on

Pressing the Preset keys while the power is ALL OFF displays the following information.

PRESET 1	Version display (8 digits, Month/Day/Hour/Minute) (Display) SYS xxxxxxxx : System microcomputer PAN xxxxxxxx : Panel microcomputer
PRESET 2	Sireal number display (8 digits) (Display) SNo xxxxxxxx
PRESET 3	Short press : View power ON time. (The All OFF period is not counted.) Long press/hold : Clear power ON time at the power ON time displaying. (Display) PON xxxxx Max. 65535 (hours)
PRESET 4	Short press : Display TAPE operation time. Long press/hold : Clear TAPE operation time at the TAPE operation time displaying. (Display) TapTim xxxxx Max. 65535 (hours)
PRESET 5	Short press : Display TAPE ejection count. Long press/hold : Clear TAPE ejection count at the TAPE ejection count displaying. (Display) EjeCnt xxxxx Max. 65535 (times)
PRESET 6	Short press : Display Panel open/close count. Long press/hold : Clear Panel open/close count at the Panel open/close count. (Display) PnCnt xxxxxx Max. 655350 (times)

10. Method of the span switching (K and M type only)

While pressing and holding the Preset 1 and Preset 5 keys, reset the unit.

11. Other specifications

- No displays such as " CODE OFF " during Power ON.
- Pressing the TI (AUTO) key during changer operation

TEST MODE

turns on 2zone. Cancel by pressing the TI (AUTO) key again. The P/S dot is lit during 2zone.

- In the case of 2 PREOUT model with Non Fader output, Each pressing and holding the ATT key for 1 second or more during All OFF, Non Fader output is switching Rear output or Non Fader output.
- In the case of 2 colors key illumination model, Each press the ATT key during All OFF, the key illumination is switching Green or Red.

■ Security-related information

1. Forced Power ON mode (All models)

Even when the security (Cord) is approved, resetting the unit while holding the ATT and Preset 4 keys makes it possible to turn the power ON for 30 minutes.
After 30 minutes have elapsed, it is not possible to return to the previous condition unless the unit is reset again.

2. Method of registration of the security code after EEPROM (Tuner Unit Ass'y) replacement (Code security model)

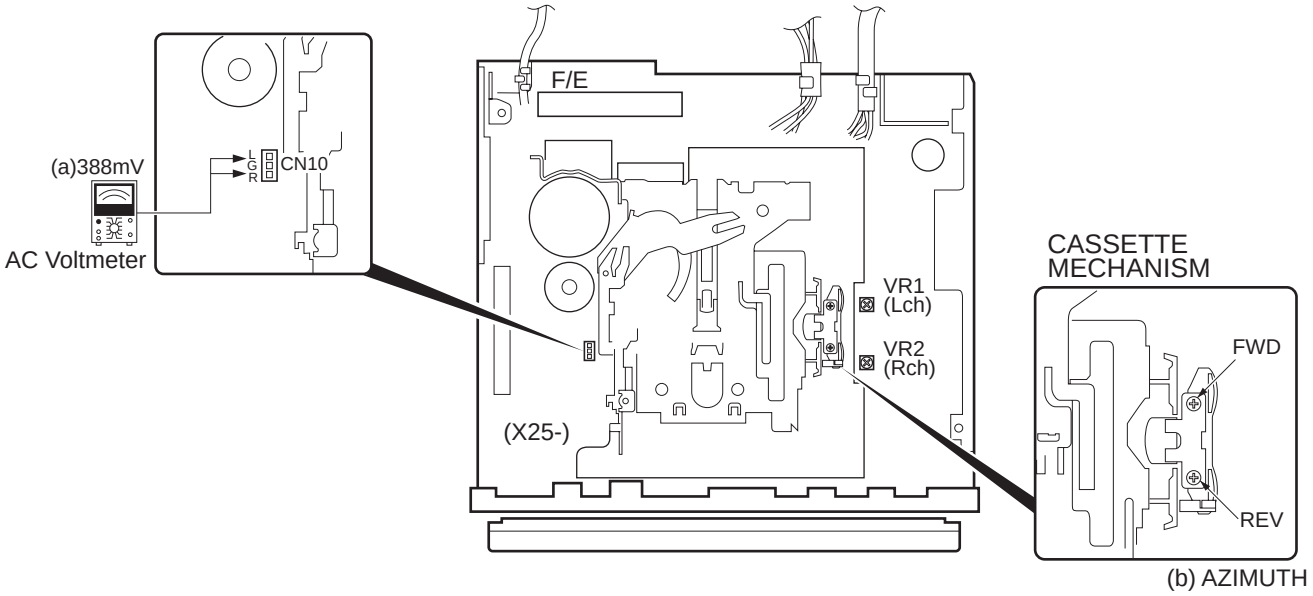
1. Enter the test mode. (See 1. How to enter the test mode)
2. Press the PLAY/PAUSE key to enter the Menu mode.
3. When the message "Security" is displayed, press and hold the Track Up/Down key for 1 second to enter the security registration mode.
4. Enter the code using the FM/AM/Track Up/Track Down keys.
   - FM key : Number up
   - AM key : Number down
   - Track Up key : Cursor right shift
   - Track Down key : Cursor left shift
5. Hold down the Track Up key for at least 3 seconds and the message, "RE-ENTER" appears, so once again enter the code according to Step 4 above.
6. Press and hold the Track Up key for 3 seconds until "APPROVED" is displayed.
7. Exit from the test mode. (See 2. How to exit from the test mode)

(Note) All Clear is not applicable to the security code of this model.

ADJUSTMENT

Set the controls and switches as follows.
BALANCE : center position BASS : center position LOUD : OFF DOLBY NR : OFF
FADER : center position TREBLE : center position

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER (RECEIVER) SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
CASSETTE DECK SECTION							
1	AZIMUTH	TCC-153 10kHz	Connect an AC voltmeter to SP OUT	TAPE PLAY	Head azimuth screw	Adjust the azimuth for each Lch/Rch or FWD/RVS becomes maximum.	(b)
2	PLAY BACK LEVEL	TCC-130	Connect an AC voltmeter to CN10	TAPE PLAY	VR1 (L) VR2 (R) (X25)	388mV (–6dBm)	(a)

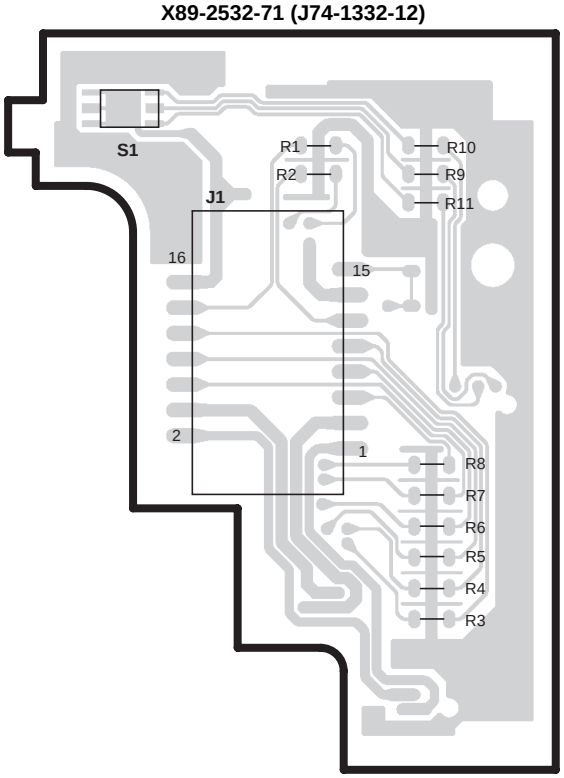


(b) AZIMUTH

PC BOARD (Component Side View + Foil Side View)

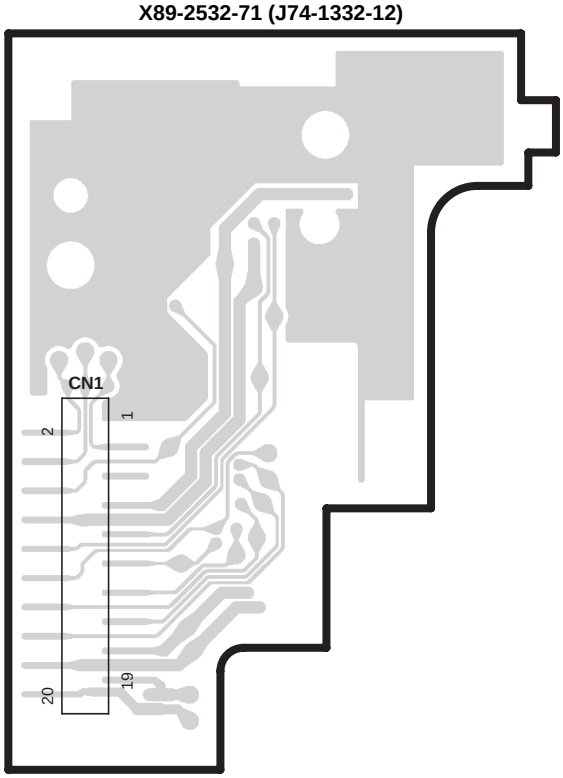
DAUGHTER UNIT

X89-2532-71 (J74-1332-12)



DAUGHTER UNIT

X89-2532-71 (J74-1332-12)



Refer to the schematic diagram for the values of resistors and capacitors.

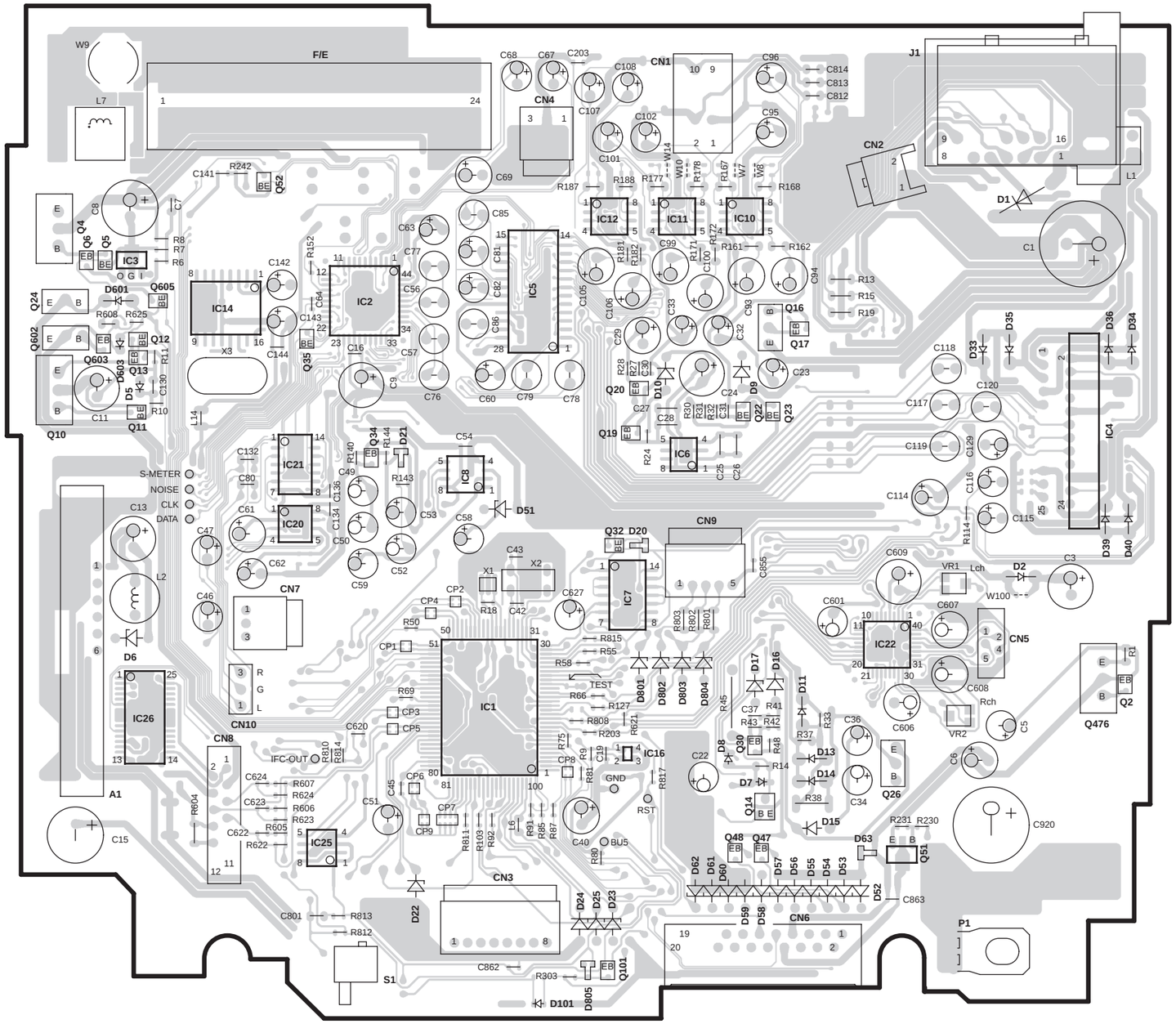
PC BOARD (Component Side View)

ELECTRIC UNIT

ELECTRIC UNIT
(X25-923X-XX)

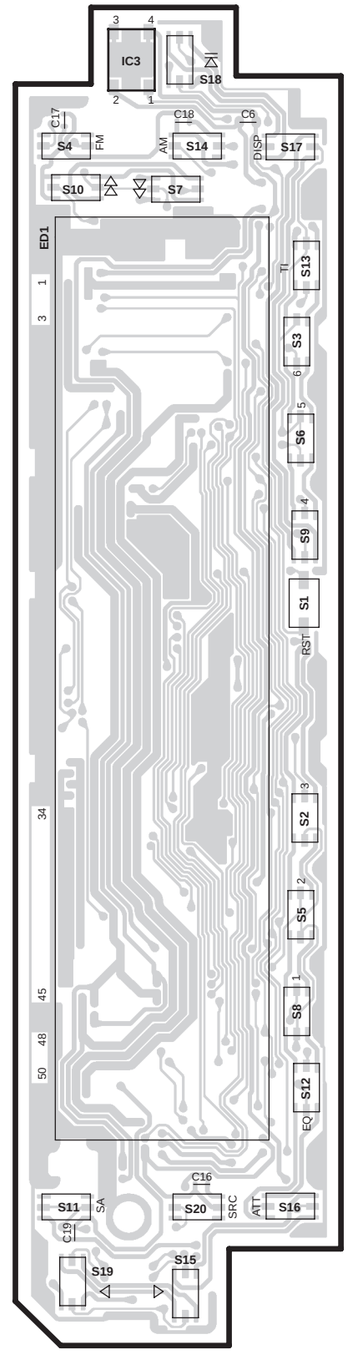
Ref. NO.		Address
IC	Q	
1		5H
2		3G
3		3F
4		4K
5		3H
6		4I
7		4H
8		4H
10		3I
11		3I
12		3H
14		3G
16		5I
20		4G
21		4G
22		5J
25		6G
26		5F
	2	5K
	4	3F
	5	3F
	6	3F
	10	4F
	11	4F
	12	3F
	13	3F
	14	5I
	16	3I
	17	3I
	19	4H
	20	3H
	22	3I
	23	3I
	24	3F
	26	5J
	30	5I
	32	4H
	34	4G
	35	3G
	47	6I
	48	6I
	51	6J
	52	2G
	101	6H
	476	5K
	602	3F
	603	3F
	605	3F

X25-923X-XX (J74-1330-22)



SWITCH UNIT

X16-1682-71 (J74-1327-22)



SWITCH UNIT
(X16-1682-71)

Ref. NO.		Address
IC	Q	
3		2L

Refer to the schematic diagram for the values of resistors and capacitors.

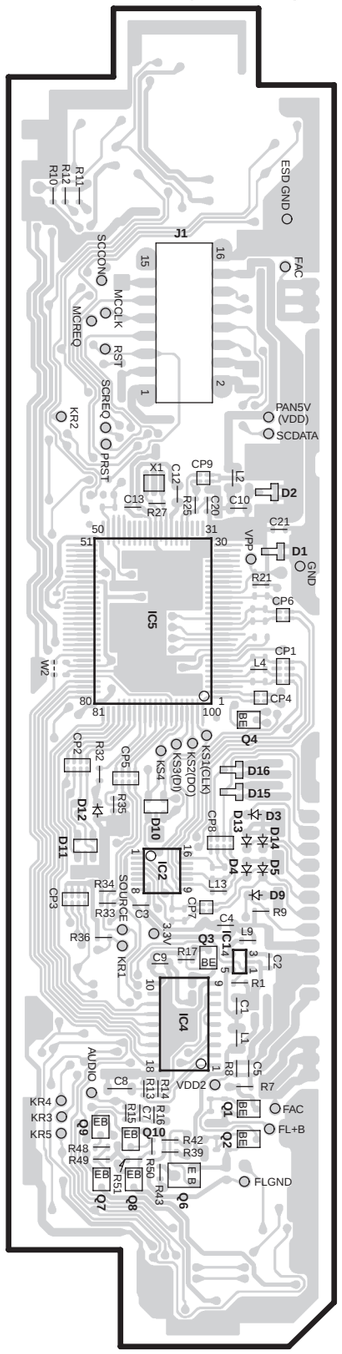
PC BOARD (Foil Side View)

SWITCH UNIT

SWITCH UNIT
(X16-1682-71)

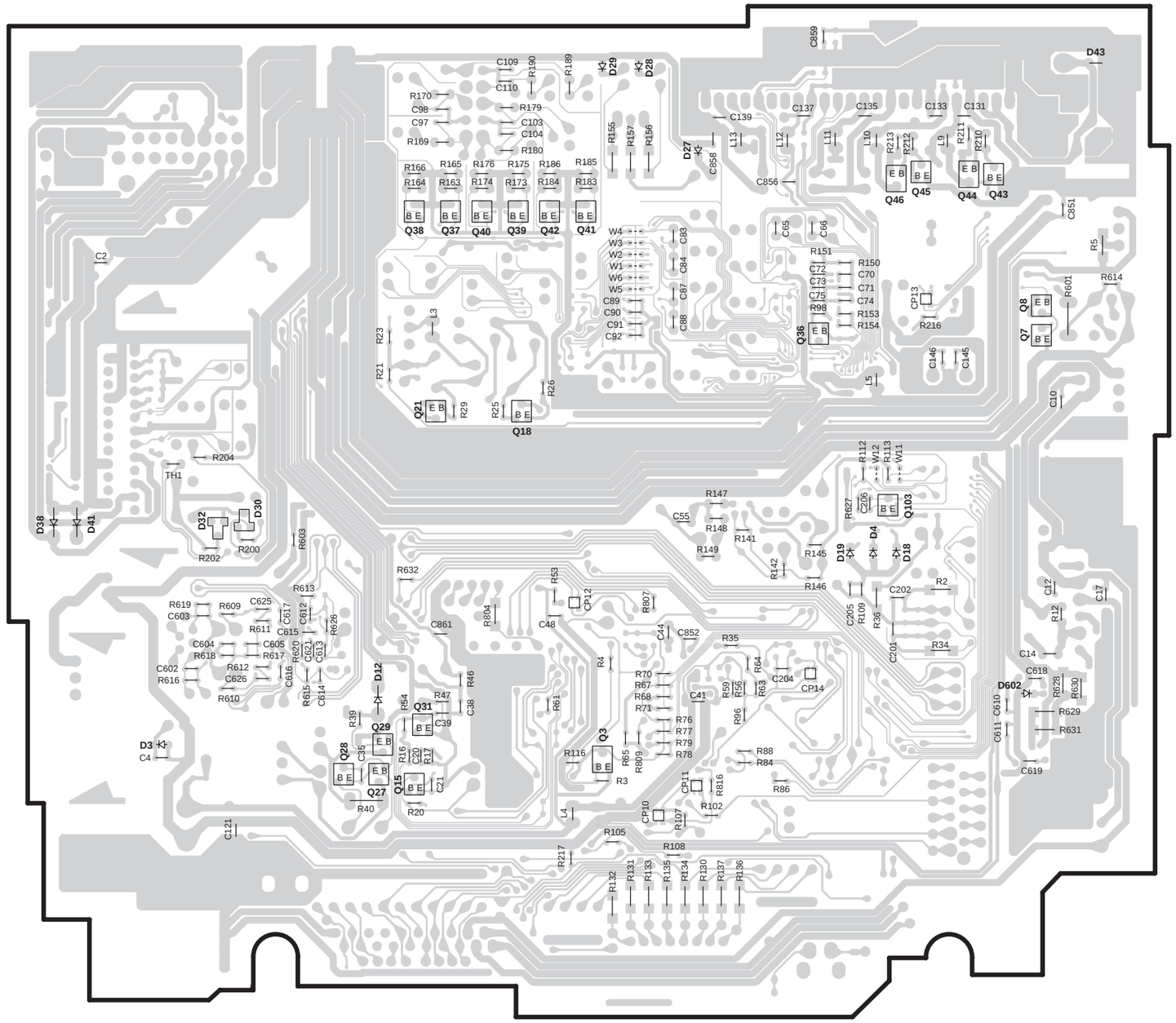
Ref. NO.		Address
IC	Q	
1		5O
2		5O
4		5O
5		4O
	1	6O
	2	6O
	3	5O
	4	4O
	6	6O
	7	6O
	8	6O
	9	6O
	10	6O

X16-1682-71 (J74-1327-22)



ELECTRIC UNIT

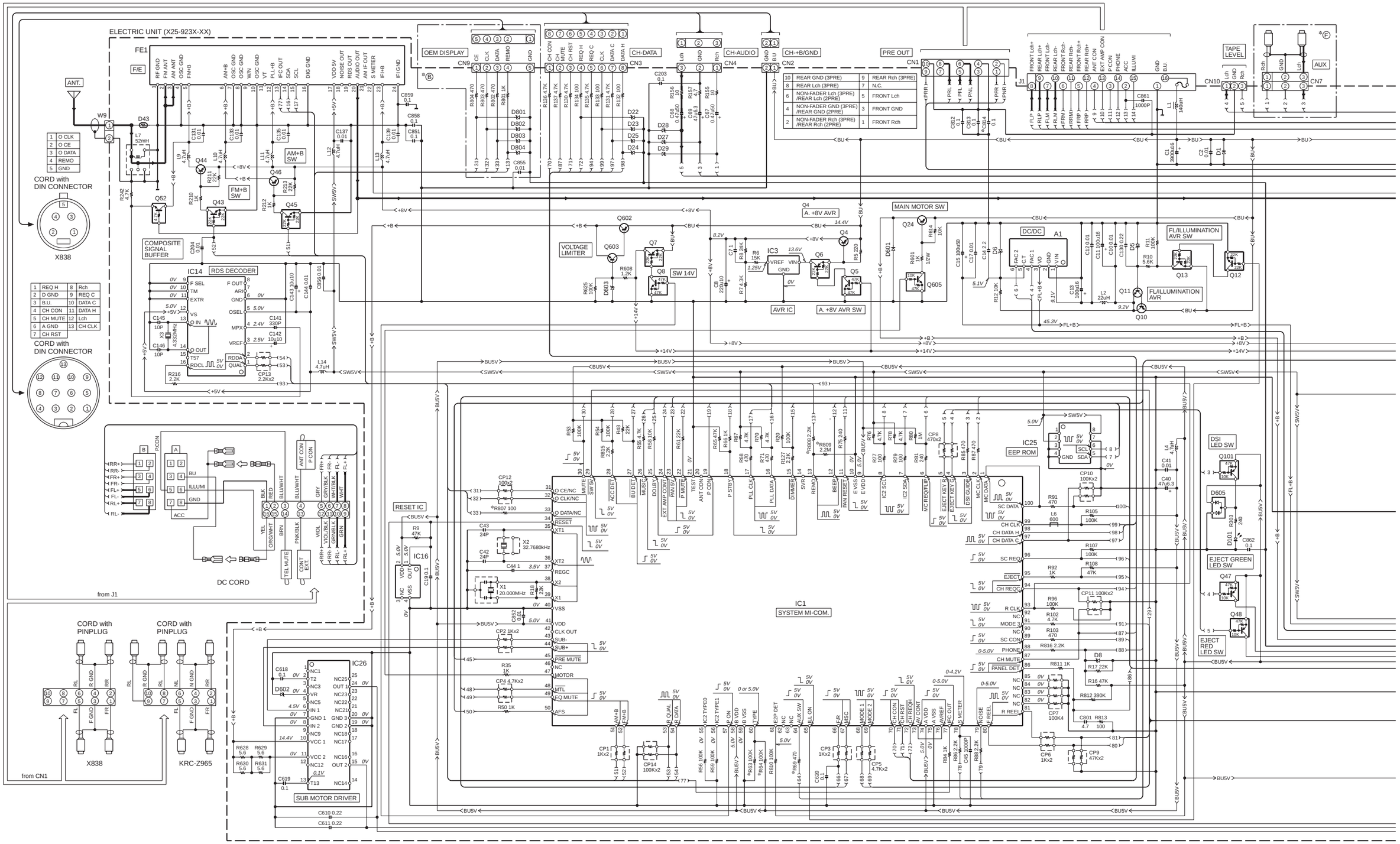
X25-923X-XX (J74-1330-22)



ELECTRIC UNIT
(X25-923X-XX)

Ref. NO.		Address
IC	Q	
	3	5S
	7	3U
	8	3U
	15	5R
	18	4R
	21	3R
	27	5R
	28	5R
	29	5R
	31	5R
	36	3T
	37	3R
	38	3R
	39	3R
	40	3R
	41	3S
	42	3S
	43	2U
	44	2U
	45	2T
	46	2T
	103	4T

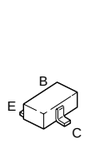
Refer to the schematic diagram for the values of resistors and capacitors.



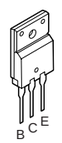
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to, parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

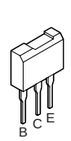
DTA123JK UN5114
DTA144EUA UN5211
DTC114YK UN5213
DTC114YUA UN5214
DTC143TUA UN5216
UN5111 2SA1576A



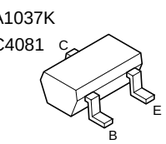
2SB1548



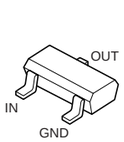
2SB1277
2SB1443



2SA1037K
2SC4081



DTA114EUA
DTA124EUA
DTC114EUA
DTC124EUA
DTC144EUA



J K L M N O P Q R

1 2 3 4 5 6 7

IC21 SWITCHED OP. AMP.

IC21 IC8 OP.AMP.

IC2 E-VOL & N.C. MPX

IC5 HIGH PASS FILTER & NON-FADER VOLUME

IC20 ISOLATION AMPLIFIER

IC22 DOLBY IC

IC6 DC/DC CONVERTER

IC7 MUTE LOGIC

IC4 POWER IC

IC10 IC11 IC12 OP. AMP.

REAR (3PRE)

N-F (3PRE) REAR (2PRE)

FRONT

4.5V PRE

AUX/TAPE SELECTOR SW

E. VOL MUTE SW

NOISE BUFFER

Q16,17 A. +10V AVR

PRE-AMP -9V AVR

Q21-23 PRE-AMP +9V AVR

BU 5V AVR

SW 5V

MUTE DRIVER

ACC DETECTION SW

DIMMER DETECTION SW

BU DETECTION SW

EX. AMP. CON SW

P-CON SW

P-CON PROTECTION SW

P-CON PROTECTION INHIBIT SW

AGC for SPECTRUM ANALYSER

PAN 5V SW

PANEL-DET SW

CASSETTE MECHA

CASSETTE MECHA -PLAY HEAD-

AUDIO MUTE SW (REAR R)

AUDIO MUTE SW (NON-FADER L)

AUDIO MUTE SW (FRONT R)

AUDIO MUTE SW (REAR L)

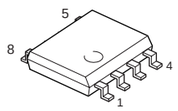
AUDIO MUTE SW (NON-FADER R)

AUDIO MUTE SW (FRONT L)

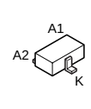
(X25-923X-XX)

MODEL NAME	UNIT No.	Ⓐ Ⓒ Ⓓ Ⓔ Ⓕ	Ⓑ	C56,57,76,77,95, 96,101,102,814	C93,94, 99,100	IC10,11	R63,807, 808	R64,69,165,-168, 175-178	R163,164, 173,174,	R809	W1-8, 10-12,14
X838(E)	2-70	NO	YES	NO	10u16	NO	YES	NO	22K	2.2M	YES
KRC-Z965(M)	0-21	YES	NO	YES	22u16	YES	NO	YES	2.2K	100K	NO

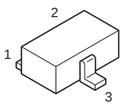
NJM4565M-TE2



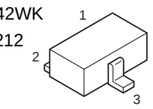
DAN202U



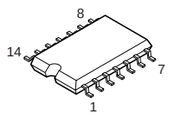
DAP202U
DA204U
DTA114YUA



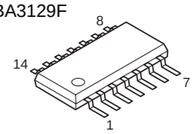
MA142WA
MA142WK
UN5212



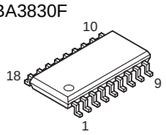
TC74HC02AF



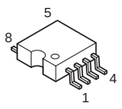
BA3129F



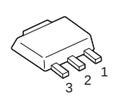
BA3830F



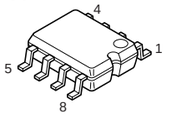
BA3121F



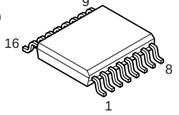
M5237ML



BR24C02F-W

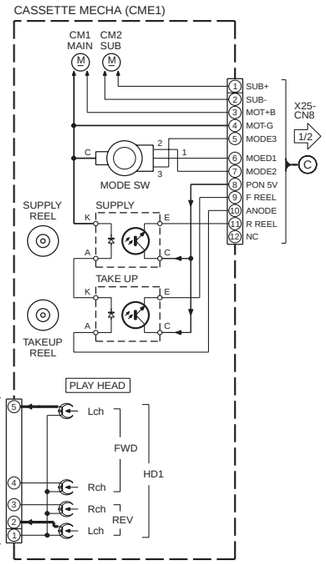


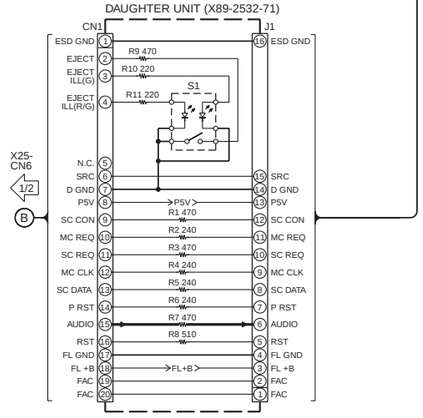
TC74HC4050AFT
TDA7479D

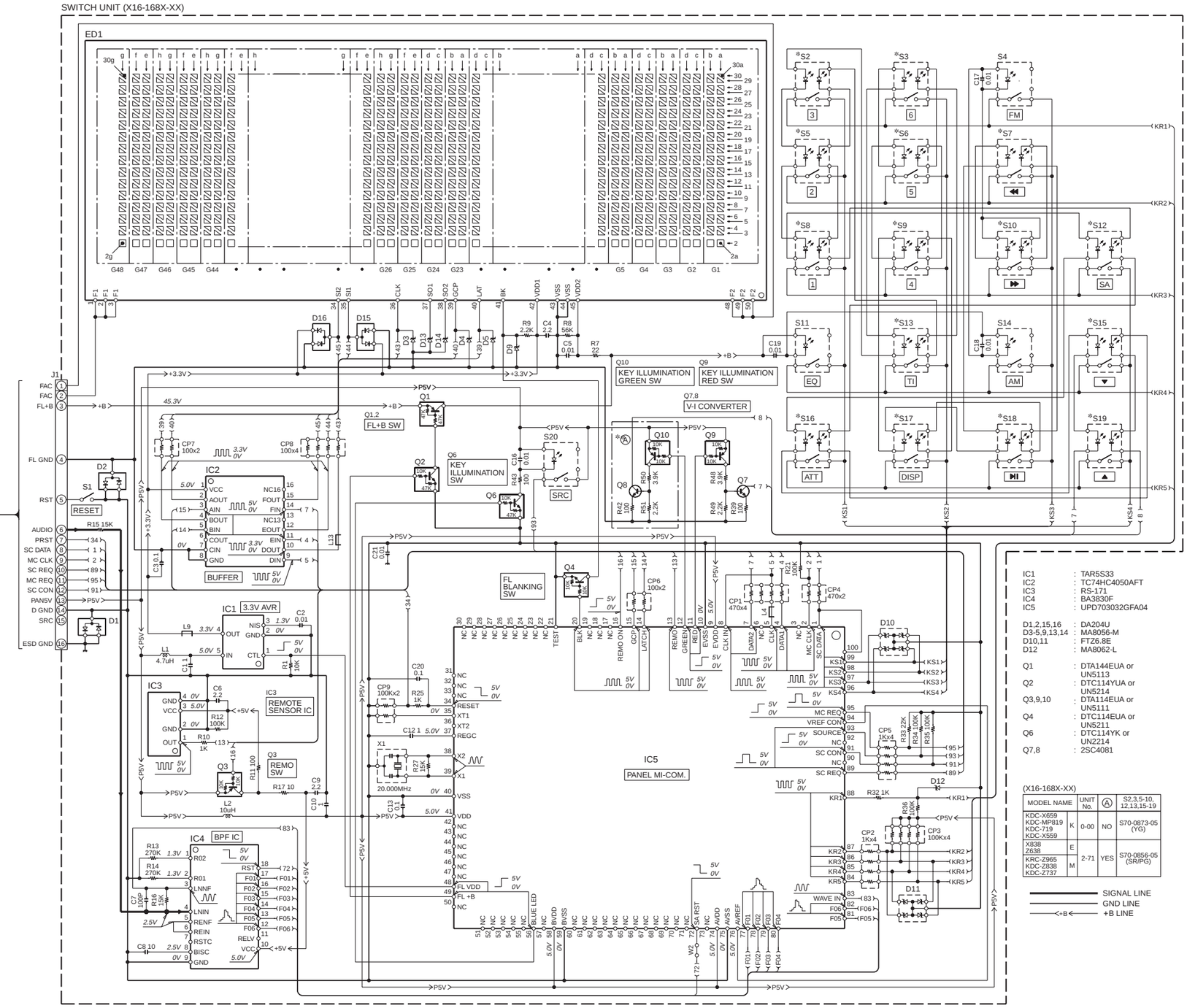


ELECTRIC UNIT (X25-923X-XX)

IC1	: UPD703033GFA19	D1	: RM10ZLF
IC2	: TDA7407	D2	: SS14
IC3	: M5237ML	D3,7	: MA8056-M
IC4	: TDA7560	D4,27	: MA8062-L
IC5	: TDA7401	D5	: MA8100-L
IC6	: ICL7660SIBA	D6	: MA4051(N)-M
IC7	: TC74HC02AF	D8	: MA8047-M
IC8,10-12	: NJM4565M-TE2	D9	: MA4110(N)-M
IC14	: TDA7479D	D10,51	: MA4056(N)-M
IC16	: S-80837ANNP	D11,13,14,33-36,39,40,601	: S1J or 1SR154-400
IC20	: BA3121F	D12,38,41	: 1SR154-400
IC21	: BA3129F	D15	: 1SS133
IC22	: CXA2560Q	D16	: MA4068(N)-M
IC25	: BR24C02F-W	D17	: MA4062(N)-M
IC26	: BA6219BFP-Y	D18,19,28,29	: MA8068-M
Q2,11,17,19,21,22,30,31,34,603	: 2SC4081	D20,30	: DAP202U or MA142WA
Q3	: 2SA1037K	D21,63,805	: DA204U
Q4,10	: 2SA2057	D22-25,52-62,801-804	: MA4062-L
Q5,8,15	: DTC144EUA or UN5213	D32	: DAN202U or MA142WK
Q6,7,13,28,32	: DTA124EUA or UN5112	D43	: IMSA-6801
Q12,29,35,43,45,103	: DTC124EUA or UN5212	D101	: B30-1566-05
Q14	: DTA123JK or KRA105S	D602	: MA8036-H
Q16,24,602	: 2SB1443	D603	: MA8220-H
Q18,20,23,27	: 2SA1576A		
Q26	: 2SB1277(Q,R)		
Q36-42,52	: DTC143TUA or UN5216		
Q44,46	: CPH3105		
Q47,48,101	: DTA114YUA or UN5114		
Q51	: 2SB1427		
Q476	: 2SB1548(P)		
Q605	: DTC114YUA or UN5214		







IC1 : TAR5S33
IC2 : TC74HC4050AFT
IC3 : RS-171
IC4 : BA3830F
IC5 : UPD703032GFA04

D1,2,15,16 : DA204U
D3-5,9,13,14 : MA8056-M
D10,11 : FTZ6.8E
D12 : MA8062-L

Q1 : DTA144EUA or UN5113
Q2 : DTC114YUA or UN5214
Q3,9,10 : DTA114EUA or UN5111
Q4 : DTC114EUA or UN5211
Q6 : DTC114YK or UN2214
Q7,8 : 2SC4081

(X16-168X-XX)

MODEL NAME	UNIT No.	Ⓐ	S2,3,5-10, 12,13,15-19
KDC-X659 KDC-MP819 KDC-719 KDC-X559	K	0-00	NO	S70-0873-05 (YG)
X838 Z638	E			
KRC-Z965 KDC-Z838 KDC-Z737	M	2-71	YES	S70-0856-05 (SR/PG)

SIGNAL LINE
GND LINE
+B LINE

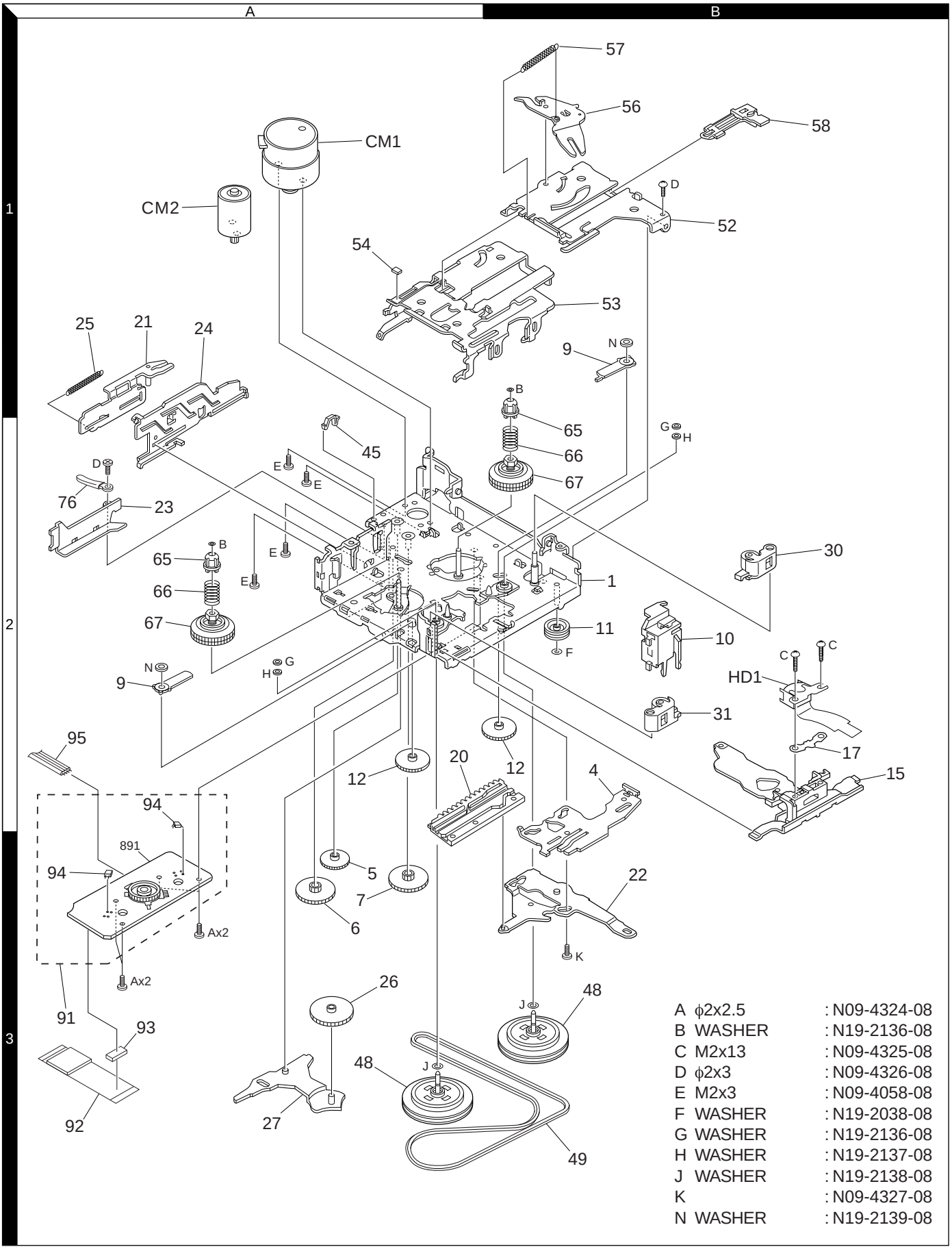
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to, parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

KRC-Z965,X838

KENWOOD

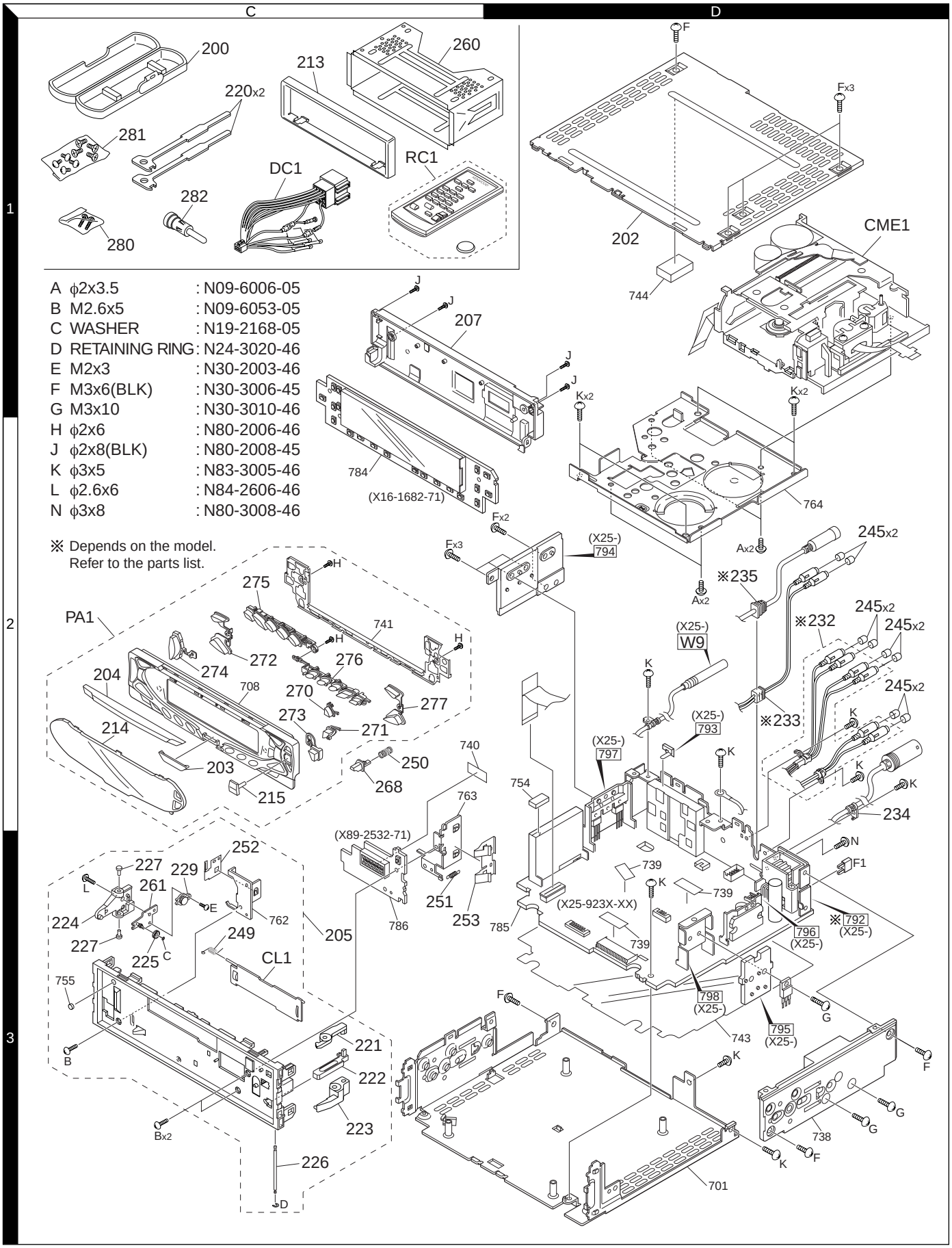
EXPLODED VIEW (MECHANISM)



A	ϕ2x2.5	: N09-4324-08
B	WASHER	: N19-2136-08
C	M2x13	: N09-4325-08
D	ϕ2x3	: N09-4326-08
E	M2x3	: N09-4058-08
F	WASHER	: N19-2038-08
G	WASHER	: N19-2136-08
H	WASHER	: N19-2137-08
J	WASHER	: N19-2138-08
K		: N09-4327-08
N	WASHER	: N19-2139-08

Parts with exploded numbers larger than 700 are not suppied.

EXPLODED VIEW (UNIT)



A	φ2x3.5	: N09-6006-05
B	M2.6x5	: N09-6053-05
C	WASHER	: N19-2168-05
D	RETAINING RING	: N24-3020-46
E	M2x3	: N30-2003-46
F	M3x6(BLK)	: N30-3006-45
G	M3x10	: N30-3010-46
H	φ2x6	: N80-2006-46
J	φ2x8(BLK)	: N80-2008-45
K	φ3x5	: N83-3005-46
L	φ2.6x6	: N84-2606-46
N	φ3x8	: N80-3008-46

※ Depends on the model.
Refer to the parts list.

Parts with exploded numbers larger than 700 are not suppied.

PARTS LIST

∗ New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohane Parts No. werden nicht geliefert.

Ref.No.	Add	New	Parts No.	Description	Destination
KRC-Z965,X838					
200	1C	∗	A02-2712-13	PLASTIC CABINET ASSY	
202	1D	∗	A52-0812-12	TOP PLATE	
203	2C	∗	A21-4175-04	DRESSING PANEL	
204	2C	∗	A21-4212-02	DRESSING PANEL	
205	3C	∗	A22-2948-12	SUB PANEL ASSY	
207	1C	∗	A46-1756-11	REAR COVER	
CL1	3C	∗	A53-1701-13	CASSETTE LID	
PA1	2C	∗	A64-2652-11	PANEL ASSY	E
PA1	2C	∗	A64-2653-11	PANEL ASSY	M1
RC1	1C	∗	A70-2026-05	REMOTE CONTROLLER ASSY(RC-420)	
213	1C	∗	B07-3050-02	ESCUTCHEON	
214	2C	∗	B10-4215-01	FRONT GLASS	E
214	2C	∗	B10-4216-01	FRONT GLASS	M1
215	2C	∗	B10-4217-04	FRONT GLASS	
-			B46-0100-50	WARRANTY CARD	
-			B46-0612-14	ID CARD	
-			B58-1365-04	CAUTION CARD	
-		∗	B64-2185-00	INST. MANUAL (ENGLISH)	E
-		∗	B64-2186-00	INST. MANUAL (FRE,GER,DUT)	E
-		∗	B64-2187-00	INST. MANUAL (ITA,SPA,POR)	E
-		∗	B64-2188-00	INST. MANUAL (ENG,T-CHI)	M1
-		∗	B64-2189-00	INST. MANUAL (ARABIC)	M1
220	1C	∗	D10-4674-04	LEVER	
221	3C	∗	D10-4675-04	LEVER	
222	3C	∗	D10-4676-04	LEVER	
223	3C	∗	D10-4677-04	LEVER	
224	3C	∗	D10-4678-03	LEVER	
225	3C	∗	D13-2242-04	GEAR	
226	3C	∗	D21-2406-04	SHAFT	
227	3C	∗	D21-2407-04	SHAFT	
229	3C		D39-0237-05	DAMPER	
CME1	1D		D40-1147-05	CASSETTE MECHANISM ASSY	
232	2D	∗	E30-6064-05	CORD WITH PINPLUG (6P)	M1
232	2D	∗	E30-6065-05	CORD WITH PINPLUG (4P)	E
233	2D	∗	E30-6067-15	CORD WITH PINPLUG (AUX 2P)	M1
234	2D	∗	E30-6068-05	CORD WITH DIN CONNECTOR (13P)	
235	2D	∗	E30-6069-05	CORD WITH DIN CONNECTOR (4P)	E
⚠ DC1	1C	∗	E30-6063-05	DC CORD	
245	2D		F29-0049-05	INSULATING COVER	
⚠ F1	3D		F52-0006-05	FUSE(MINI BLADE TYPE) (10A)	
⚠ F1	3D		F52-0011-05	FUSE(MINI BLADE TYPE) (10A)	
249	3C	∗	G01-3138-04	TORSION COIL SPRING	
250	2C	∗	G01-3135-04	COMPRESSION SPRING (OPEN)	
251	3C	∗	G01-3136-14	EXTENSION SPRING	
252	3C	∗	G02-1428-04	FLAT SPRING	
253	3C	∗	G02-1429-04	FLAT SPRING	
-		∗	H10-4802-12	POLYSTYRENE FOAMED FIXTURE	
-			H25-0329-04	PROTECTION BAG (280X450X0.03)	M1
-			H25-0337-04	PROTECTION BAG (180X300X0.03)	
-			H25-1111-04	PROTECTION BAG (280X450X0.03)	E
-		∗	H54-2326-03	ITEM CARTON CASE	M1
-		∗	H54-2327-03	ITEM CARTON CASE	E
260	1C	∗	J21-9823-03	MOUNTING HARDWARE ASSY	
261	3C	∗	J21-9831-04	MOUNTING HARDWARE ASSY	
268	2C	∗	K24-3837-04	KNOB (OPEN)	
270	2C	∗	K24-3850-04	KNOB (SKIP UP)	
271	2C	∗	K24-3851-04	KNOB (SKIP DOWN)	
272	2C	∗	K25-1417-13	KNOB (EQ,SRC)	
273	2C	∗	K25-1418-03	KNOB (PAUSE)	
274	2C	∗	K25-1423-03	KNOB (VOL)	
275	2C	∗	K25-1456-03	KNOB (P1-3)	
276	2C	∗	K25-1420-03	KNOB (R4-6,TI,DISP)	
277	2C	∗	K25-1458-13	KNOB (FM,AM)	M1
277	2C	∗	K25-1459-13	KNOB (FM,AM)	E
280	1C		N99-1656-05	SCREW SET	
281	1C		N99-1723-05	SCREW SET	M1
A	2D		N30-3004-46	PAN HEAD MACHINE SCREW	
B	3C	∗	N09-6053-05	MACHINE SCREW (M2.6X5)	
C	3C	∗	N19-2168-05	FLAT WASHER (1.4X3X0.25)	
D	3C		N24-3020-46	E TYPE RETAINING RING(2X5X1.7)	
E	3C		N30-2003-46	PAN HEAD MACHINE SCREW	
F	1D		N30-3006-45	PAN HEAD MACHINE SCREW	
G	3D		N30-3010-46	PAN HEAD MACHINE SCREW	
H	2C		N80-2006-46	PAN HEAD TAPTITE SCREW	
J	1C		N80-2008-45	PAN HEAD TAPTITE SCREW	
K	1D		N83-3005-46	PAN HEAD TAPTITE SCREW	
L	3C		N84-2606-46	PAN HEAD TAPTITE SCREW	
282	1C		T90-0523-05	ANTENNA ADAPTOR	
282	1C		T90-0534-05	ANTENNA ADAPTOR	
282	1C	∗	T90-0552-05	ANTENNA ADAPTOR	

Ref.No.	Add	New	Parts No.	Description	Destination
SWITCH UNIT(X16-1682-71)					
C1			CK73FB1A105K	CHIP C 1.0UF K	
C2			CK73GB1H103K	CHIP C 0.010UF K	
C3			CK73GB1C104K	CHIP C 0.10UF K	
C4			CK73FB1A225K	CHIP C 2.2UF K	
C5			CK73GB1H104K	CHIP C 0.10UF K	
C6			CK73FB1A225K	CHIP C 2.2UF K	
C7			CC73GCH1H101J	CHIP C 100PF J	
C8			CK73EB0J106K	CHIP C 10UF K	
C9			CK73FB1A225K	CHIP C 2.2UF K	
C10			CK73FB1A105K	CHIP C 1.0UF K	
C12			CK73FB1A105K	CHIP C 1.0UF K	
C13			CK73GB1C104K	CHIP C 0.10UF K	
C16-19			CK73GB1H103K	CHIP C 0.010UF K	
C20			CK73GB1H104K	CHIP C 0.10UF K	
C21			CK73GB1H103K	CHIP C 0.010UF K	
J1			E59-0829-05	RECTANGULAR PLUG (16P)	
L1			L40-4795-68	SMALL FIXED INDUCTOR (4.7UH)	
L2		∗	L40-1005-68	SMALL FIXED INDUCTOR (10UH)	
L4			L92-0332-05	CHIP FERRITE	
L9			L92-0332-05	CHIP FERRITE	
L13			L92-0332-05	CHIP FERRITE	
X1			L78-0821-05	RESONATOR (20.0MHZ)	

E : X838 **M1 :** KRC-Z965

⚠ indicates safety critical components.

PARTS LIST

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Ref.No.	Add	New	Parts No.	Description			Destination
CP1			R90-1016-05	MULTI-COMP	470	X4	
CP2			R90-0724-05	MULTI-COMP	1K	X4	
CP3			R90-0720-05	MULTI-COMP	100K	X4	
CP4			R90-1022-05	MULTI-COMP	470	X2	
CP5			R90-0724-05	MULTI-COMP	1K	X4	
CP6,7			R90-1019-05	MULTI-COMP	100	X2	
CP8			R90-1014-05	MULTI-COMP	100	X4	
CP9			R90-0737-05	MULTI-COMP	100K	X2	
R1			RK73GB2A103J	CHIP R	10K	J 1/10W	
R7		∗	RK73GB2A220J	CHIP R	22	J 1/10W	
R8			RK73GB2A563J	CHIP R	56K	J 1/10W	
R9			RK73GB2A222J	CHIP R	2.2K	J 1/10W	
R10			RK73GB2A102J	CHIP R	1.0K	J 1/10W	
R11			RK73GB2A101J	CHIP R	100	J 1/10W	
R12			RK73GB2A104J	CHIP R	100K	J 1/10W	
R13,14		∗	RK73GB2A274J	CHIP R	270K	J 1/10W	
R15,16			RK73GB2A153J	CHIP R	15K	J 1/10W	
R17			RK73GB2A100J	CHIP R	10	J 1/10W	
R21			RK73GB2A104J	CHIP R	100K	J 1/10W	
R25			RK73GB2A102J	CHIP R	1.0K	J 1/10W	
R27			RK73GB2A153J	CHIP R	15K	J 1/10W	
R32			RK73GB2A102J	CHIP R	1.0K	J 1/10W	
R33			RK73GB2A223J	CHIP R	22K	J 1/10W	
R34-36			RK73GB2A104J	CHIP R	100K	J 1/10W	
R39			RK73GB2A101J	CHIP R	100	J 1/10W	
R42,43			RK73GB2A101J	CHIP R	100	J 1/10W	
R48			RK73GB2A392J	CHIP R	3.9K	J 1/10W	
R49			RK73GB2A222J	CHIP R	2.2K	J 1/10W	
R50			RK73GB2A392J	CHIP R	3.9K	J 1/10W	
R51			RK73GB2A222J	CHIP R	2.2K	J 1/10W	
W2			R92-1252-05	CHIP R	0 OHM	J 1/16W	
S1			S70-0863-05	TACT SWITCH			
S2,3			S70-0856-05	TACT SWITCH			
S4			S70-0857-05	TACT SWITCH			
S5-10			S70-0856-05	TACT SWITCH			
S11			S70-0857-05	TACT SWITCH			
S12,13			S70-0856-05	TACT SWITCH			
S14			S70-0857-05	TACT SWITCH			
S15-19			S70-0856-05	TACT SWITCH			
S20			S70-0857-05	TACT SWITCH			
D1,2			DA204U	DIODE			
D3-5			MA8056-M	ZENER DIODE			
D9			MA8056-M	ZENER DIODE			
D10,11			FTZ6.8E	ZENER DIODE			
D12			MA8062-L	ZENER DIODE			
D13,14			MA8056-M	ZENER DIODE			
D15,16			DA204U	DIODE			
ED1		∗	CN2034M	FLUORESCENT INDICATOR TUBE			
IC1		∗	TAR5S33	ANALOGUE IC			
IC2			TC74HC4050AFT	MOS-IC			
IC3			RS-171	ANALOGUE IC			
IC4			BA3830F	ANALOGUE IC			
IC5		∗	UPD703032GFA04	MI-COM IC			
Q1			DTA144EUA	DIGITAL TRANSISTOR			

SWITCH UNIT(X16-1682-71)

Ref.No.	Add	New	Parts No.	Description	Destination
Q1			UN5113	DIGITAL TRANSISTOR	
Q2			DTC114YUA	DIGITAL TRANSISTOR	
Q2			UN5214	DIGITAL TRANSISTOR	
Q3			DTA114EUA	DIGITAL TRANSISTOR	
Q3			UN5111	DIGITAL TRANSISTOR	
Q4			DTC114EUA	DIGITAL TRANSISTOR	
Q4			UN5211	DIGITAL TRANSISTOR	
Q6			DTC114YK	DIGITAL TRANSISTOR	
Q6			UN2214	DIGITAL TRANSISTOR	
Q7,8			2SC4081	TRANSISTOR	
Q9,10			DTA114EUA	DIGITAL TRANSISTOR	
Q9,10			UN5111	DIGITAL TRANSISTOR	

ELECTRIC UNIT(X25-923X-XX)

Ref.No.	Add	New	Parts No.	Description			Destination
D101			B30-1566-05	LED(1608,RED)			
C1			C90-2822-05	ELECTRO	3900UF	16WV	
C2			CK73GB1H103K	CHIP C	0.010UF	K	
C3			C90-2980-05	ELECTRO	220UF	16WV	
C4			CK73GB1H103K	CHIP C	0.010UF	K	
C5			C90-2594-05	ELECTRO	10UF	10WV	
C6			C90-2547-05	ELECTRO	100UF	6.3WV	
C7			CK73FB1C105K	CHIP C	1.0UF	K	
C8			CE04CW1A221M	ELECTRO	220UF	10WV	
C9			CE04CW1A470M	ELECTRO	47UF	10WV	
C10			CK73GB1H103K	CHIP C	0.010UF	K	
C11			C90-2962-05	ELECTRO	100UF	16WV	
C12			CK73GB1H103K	CHIP C	0.010UF	K	
C13			C90-2962-05	ELECTRO	100UF	16WV	
C14			CK73FB1A225K	CHIP C	2.2UF	K	
C15			C90-2979-05	ELECTRO	100UF	50WV	
C16,17			CK73GB1H103K	CHIP C	0.010UF	K	
C19			CK73GB1H104K	CHIP C	0.10UF	K	
C20			CK73GB1H103K	CHIP C	0.010UF	K	
C21			CK73GB1E223K	CHIP C	0.022UF	K	
C22		∗	C90-5440-05	ELECTRO	1.0UF	50WV	
C23			C90-2595-05	ELECTRO	4.7UF	16WV	M1
C24			C90-2962-05	ELECTRO	100UF	16WV	M1
C25-28			CK73EB1C225K	CHIP C	2.2UF	K	M1
C29			CE04CW1C220M	ELECTRO	22UF	16WV	M1
C30			CK73GB1E223K	CHIP C	0.022UF	K	M1
C31			CK73GB1H103K	CHIP C	0.010UF	K	M1
C32,33			C90-2595-05	ELECTRO	4.7UF	16WV	M1
C34		∗	C90-5438-05	ELECTRO	3.3UF	25WV	
C35			CK73GB1C683K	CHIP C	0.068UF	K	
C36		∗	C90-5439-05	ELECTRO	0.1UF	50WV	
C37			CK73GB1H102K	CHIP C	1000PF	K	
C38,39			CK73GB1H103K	CHIP C	0.010UF	K	
C40		∗	C90-5441-05	ELECTRO	47UF	6.3WV	
C41			CK73GB1H103K	CHIP C	0.010UF	K	
C42,43			CC73GCH1H240J	CHIP C	24PF	J	
C44			CK73FB1C105K	CHIP C	1.0UF	K	
C45			CK73GB1H102K	CHIP C	1000PF	K	
C46,47			C90-2595-05	ELECTRO	4.7UF	16WV	M1
C48			CK73GB1H103K	CHIP C	0.010UF	K	
C49-53		∗	C90-5436-05	ELECTRO	4.7UF	16WV	

E : X838 **M1 :** KRC-Z965

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PARTS LIST

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ELECTRIC UNIT(X25-923X-XX)

Ref.No.	Add	New	Parts No.	Description	Destination
C54			CK73GB1H103K	CHIP C 0.010UF K	
C55			CK73FB1C105K	CHIP C 1.0UF K	
C56,57			C90-2524-05	NP-ELEC 4.7UF 16WV	M1
C58,59			C90-2597-05	ELECTRO 10UF 16WV	
C60			C90-2608-05	ELECTRO 1.0UF 50WV	M1
C61			CE04CW1A220M	ELECTRO 22UF 10WV	M1
C62			C90-2597-05	ELECTRO 10UF 16WV	M1
C63			CE04NW1H2R2M	ELECTRO 2.2UF 50WV	
C65,66			CK73FB1C105K	CHIP C 1.0UF K	
C67,68			CE04NW1HR47M	ELECTRO 0.47UF 50WV	
C69			CE04DW0J470M	ELECTRO 47UF 6.3WV	
C70			CK73GB1A474K	CHIP C 0.47UF K	
C71			CC73GCH1H151J	CHIP C 150PF J	
C72			CK73GB1H333K	CHIP C 0.033UF K	
C73			CK73GB1H103K	CHIP C 0.010UF K	
C74,75			CK73GB1C104K	CHIP C 0.10UF K	
C76-79			C90-2524-05	NP-ELEC 4.7UF 16WV	M1
C80			CK73FB1C105K	CHIP C 1.0UF K	M1
C81,82			C90-2605-05	ELECTRO 0.33UF 50WV	M1
C83,84			CK73FB1C334K	CHIP C 0.33UF K	M1
C85,86			C90-5356-05	ELECTRO 4.7UF 16WV	M1
C87,88			CK73FB1C334K	CHIP C 0.33UF K	M1
C89-92			CK73GB1C104K	CHIP C 0.10UF K	M1
C93,94			CE04CW1C220M	ELECTRO 22UF 16WV	M1
C93,94			C90-2597-05	ELECTRO 10UF 16WV	E
C95,96			CE04NW1C100M	ELECTRO 10UF 16WV	M1
C97,98			CK73GB1H222K	CHIP C 2200PF K	
C99,100			CE04CW1C220M	ELECTRO 22UF 16WV	M1
C99,100			C90-2597-05	ELECTRO 10UF 16WV	E
C101,102			CE04NW1C100M	ELECTRO 10UF 16WV	M1
C103,104			CK73GB1H222K	CHIP C 2200PF K	
C105,106			CE04CW1C220M	ELECTRO 22UF 16WV	M1
C107,108			CE04NW1C100M	ELECTRO 10UF 16WV	M1
C109,110			CK73GB1H222K	CHIP C 2200PF K	M1
C114			CE04CW1A330M	ELECTRO 33UF 10WV	
C115,116			C90-2558-05	ELECTRO 1.0UF 50WV	
C117-120			C90-5297-05	NP-ELECT 0.22UF 50WV	
C121			CK73GB1H103K	CHIP C 0.010UF K	
C129			C90-5308-05	ELECTRO 1.0UF 50WV	
C130			CK73FB1C224K	CHIP C 0.22UF K	
C131			CK73GB1H103K	CHIP C 0.010UF K	
C132			CK73FB1C105K	CHIP C 1.0UF K	M1
C133			CK73GB1H103K	CHIP C 0.010UF K	
C134			CK73GB1H103K	CHIP C 0.010UF K	M1
C135			CK73GB1H103K	CHIP C 0.010UF K	
C136			CK73GB1H103K	CHIP C 0.010UF K	M1
C137			CK73GB1H103K	CHIP C 0.010UF K	
C139			CK73GB1H103K	CHIP C 0.010UF K	
C141			CC73GCH1H331J	CHIP C 330PF J	
C142,143		∗	C90-5435-05	ELECTRO 10UF 10WV	
C144			CK73GB1H103K	CHIP C 0.010UF K	
C145,146			CC73GCH1H100D	CHIP C 10PF D	
C201,202			CK73GB1H332K	CHIP C 3300PF K	M1
C203			CK73GB1H104K	CHIP C 0.10UF K	
C204			CK73GB1H103K	CHIP C 0.010UF K	

Ref.No.	Add	New	Parts No.	Description	Destination
C205,206			CK73GB1H104K	CHIP C 0.10UF K	M1
C601		∗	C90-5435-05	ELECTRO 10UF 10WV	
C602-605			CC73GCH1H471J	CHIP C 470PF J	
C606-608			CE04CW1A330M	ELECTRO 33UF 10WV	
C609			CE04CW1C470M	ELECTRO 47UF 16WV	
C610,611			CK73GB1A224K	CHIP C 0.22UF K	
C612			CK73GB1A474K	CHIP C 0.47UF K	
C613			CK73GB1E223K	CHIP C 0.022UF K	
C614-620			CK73GB1C104K	CHIP C 0.10UF K	
C621			CK73GB1H472K	CHIP C 4700PF K	
C622-626			CK73GB1H103K	CHIP C 0.010UF K	
C627		∗	C90-5435-05	ELECTRO 10UF 10WV	
C801			CK73FB0J475K	CHIP C 4.7UF K	
C812,813			CK73FB1H104K	CHIP C 0.10UF K	
C814			CK73FB1H104K	CHIP C 0.10UF K	M1
C851			CK73GB1H104K	CHIP C 0.10UF K	
C852			CK73GB1H103K	CHIP C 0.010UF K	
C855			CK73GB1H103K	CHIP C 0.010UF K	E
C856			CK73GB1H103K	CHIP C 0.010UF K	
C858,859			CK73GB1H104K	CHIP C 0.10UF K	
C861			CK73GB1H102K	CHIP C 1000PF K	
C862,863			CK73GB1H104K	CHIP C 0.10UF K	
CN1		∗	E41-0174-05	PIN ASSY (10P)	
CN2			E40-3299-05	PIN ASSY (2P)	
CN3			E40-3266-05	PIN ASSY (8P)	
CN4			E40-3261-05	PIN ASSY (3P)	
CN5			E40-9159-05	FLAT CABLE CONNECTOR (5P)	
CN6			E40-9490-15	PIN ASSY (20P)	
CN7			E40-3261-05	PIN ASSY (3P)	M1
CN8			E40-5036-05	FLAT CABLE CONNECTOR (12P)	
CN9			E40-3263-05	PIN ASSY (5P)	E
CN10			E40-9184-05	PIN ASSY (3P)	
⚠ J1			E58-0863-15	RECTANGULAR RECEPTACLE (16P)	
W9	2D	∗	E30-6098-05	CORD WITH PLUG	
L1			L33-1170-05	CHOKE COIL ASSY (140UH)	
L2			L33-1029-05	SMALL FIXED INDUCTOR (22UH)	
L3			L40-2201-78	SMALL FIXED INDUCTOR (22UH)	M1
L4,5			L40-4792-78	SMALL FIXED INDUCTOR (4.7UH)	
L6			L92-0075-05	CHIP FERRITE	
L7			L33-1039-05	LINE FILTER COIL (52mH)	
L9-14			L40-4795-68	SMALL FIXED INDUCTOR (4.7UH)	
X1			L78-0821-05	RESONATOR (20.0MHZ)	
X2			L77-2738-05	CRYSTAL RESONATOR (32.768KHZ)	
X3			L77-2002-05	CRYSTAL RESONATOR (4.332MHZ)	
F	2D		N30-3006-45	PAN HEAD MACHINE SCREW	
G	3D		N30-3010-46	PAN HEAD MACHINE SCREW	
K	2D		N83-3005-46	PAN HEAD TAPTITE SCREW	
N	3D		N80-3008-46	PAN HEAD TAPTITE SCREW	
CP1-3			R90-0725-05	MULTI-COMP 1K X2	
CP4,5			R90-0719-05	MULTI-COMP 4.7K X2	
CP6			R90-0725-05	MULTI-COMP 1K X2	
CP7			R90-0720-05	MULTI-COMP 100K X4	
CP8			R90-1022-05	MULTI-COMP 470 X2	

E : X838 **M1 :** KRC-Z965

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PARTS LIST

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ELECTRIC UNIT(X25-923X-XX)

Ref.No.	Add	New	Parts No.	Description			Destination
CP9			R90-0723-05	MULTI-COMP	47K	X2	
CP10,11		∗	R90-1051-05	MULTI-COMP	100K	X2	
CP12		∗	R90-1508-05	MULTI-COMP	100	X2	
CP13			R90-1047-05	MULTI-COMP	2.2K	X2	
CP14		∗	R90-1051-05	MULTI-COMP	100K	X2	
R1			RK73FB2B223J	CHIP R	22K	J 1/8W	
R2			RK73EB2E100J	CHIP R	10	J 1/4W	M1
R3			RK73GB2A223J	CHIP R	22K	J 1/10W	
R4			RK73GB2A222J	CHIP R	2.2K	J 1/10W	
R5			RK73EB2E221J	CHIP R	220	J 1/4W	
R6			RK73GB2A153J	CHIP R	15K	J 1/10W	
R7			RK73GH1J432D	CHIP R	4.3K	D 1/16W	
R8			RK73GH1J243D	CHIP R	24K	D 1/16W	
R9			RK73GB2A473J	CHIP R	47K	J 1/10W	
R10			RK73GB2A562J	CHIP R	5.6K	J 1/10W	
R11			RK73GB2A104J	CHIP R	100K	J 1/10W	
R12			RK73FB2B103J	CHIP R	10K	J 1/8W	
R13			RK73EB2E102J	CHIP R	1.0K	J 1/4W	
R14			RK73FB2B561J	CHIP R	560	J 1/8W	
R15			RK73EB2E103J	CHIP R	10K	J 1/4W	
R16			RK73GB2A473J	CHIP R	47K	J 1/10W	
R17,18			RK73GB2A223J	CHIP R	22K	J 1/10W	
R19			RK73EB2E103J	CHIP R	10K	J 1/4W	
R20			RK73GB2A104J	CHIP R	100K	J 1/10W	
R21			RK73GB2A102J	CHIP R	1.0K	J 1/10W	M1
R23		∗	RK73GB2A750J	CHIP R	75	J 1/10W	M1
R24			RK73GB2A272J	CHIP R	2.7K	J 1/10W	M1
R25			RK73GB2A470J	CHIP R	47	J 1/10W	M1
R26		∗	RK73GB2A752J	CHIP R	7.5K	J 1/10W	M1
R27			RK73GB2A563J	CHIP R	56K	J 1/10W	M1
R28			RK73GB2A913J	CHIP R	91K	J 1/10W	M1
R29			RK73GB2A470J	CHIP R	47	J 1/10W	M1
R30			RK73GB2A103J	CHIP R	10K	J 1/10W	M1
R31,32			RK73GB2A913J	CHIP R	91K	J 1/10W	M1
R33			RK73GB2A472J	CHIP R	4.7K	J 1/10W	
R34			RK73EB2E100J	CHIP R	10	J 1/4W	M1
R35			RK73GB2A102J	CHIP R	1.0K	J 1/10W	
R36			RK73EB2E4R7J	CHIP R	4.7	J 1/4W	M1
R37			RK73FB2B472J	CHIP R	4.7K	J 1/8W	
R38			R92-0365-05	CHIP R	1.0K	J 1/2W	
R39			RK73GB2A223J	CHIP R	22K	J 1/10W	
R40			R92-0365-05	CHIP R	1.0K	J 1/2W	
R41			RK73GB2A123J	CHIP R	12K	J 1/10W	
R42			RK73GB2A223J	CHIP R	22K	J 1/10W	
R43			RK73GB2A153J	CHIP R	15K	J 1/10W	
R45			RD14DB2H332J	SMALL-RD	3.3K	J 1/2W	
R46			RK73GB2A473J	CHIP R	47K	J 1/10W	
R47			RK73GB2A183J	CHIP R	18K	J 1/10W	
R48			RK73GB2A223J	CHIP R	22K	J 1/10W	
R50			RK73GB2A102J	CHIP R	1.0K	J 1/10W	
R53,54			RK73GB2A104J	CHIP R	100K	J 1/10W	
R55			RK73GB2A472J	CHIP R	4.7K	J 1/10W	
R56			RK73GB2A104J	CHIP R	100K	J 1/10W	
R58			RK73GB2A103J	CHIP R	10K	J 1/10W	
R59			RK73GB2A104J	CHIP R	100K	J 1/10W	

Ref.No.	Add	New	Parts No.	Description			Destination
R61			RK73GB2A223J	CHIP R	22K	J 1/10W	
R63			RK73GB2A104J	CHIP R	100K	J 1/10W	E
R64			RK73GB2A104J	CHIP R	100K	J 1/10W	M1
R65			RK73GB2A473J	CHIP R	47K	J 1/10W	
R66			RK73GB2A102J	CHIP R	1.0K	J 1/10W	
R67			RK73GB2A472J	CHIP R	4.7K	J 1/10W	
R68			RK73GB2A471J	CHIP R	470	J 1/10W	
R69			RK73GB2A471J	CHIP R	470	J 1/10W	M1
R70			RK73GB2A472J	CHIP R	4.7K	J 1/10W	
R71			RK73GB2A471J	CHIP R	470	J 1/10W	
R75		∗	RK73GB2A241J	CHIP R	240	J 1/10W	
R76			RK73GB2A472J	CHIP R	4.7K	J 1/10W	
R77			RK73GB2A101J	CHIP R	100	J 1/10W	
R78			RK73GB2A472J	CHIP R	4.7K	J 1/10W	
R79			RK73GB2A101J	CHIP R	100	J 1/10W	
R80			RK73GB2A105J	CHIP R	1.0M	J 1/10W	
R81		∗	RK73GB2A241J	CHIP R	240	J 1/10W	
R84			RK73GB2A102J	CHIP R	1.0K	J 1/10W	
R85			RK73GB2A471J	CHIP R	470	J 1/10W	
R86			RK73GB2A222J	CHIP R	2.2K	J 1/10W	
R87			RK73GB2A471J	CHIP R	470	J 1/10W	
R88			RK73GB2A222J	CHIP R	2.2K	J 1/10W	
R91			RK73GB2A471J	CHIP R	470	J 1/10W	
R92			RK73GB2A102J	CHIP R	1.0K	J 1/10W	
R96			RK73GB2A104J	CHIP R	100K	J 1/10W	
R98			RK73GB2A472J	CHIP R	4.7K	J 1/10W	
R102			RK73GB2A472J	CHIP R	4.7K	J 1/10W	
R103			RK73GB2A471J	CHIP R	470	J 1/10W	
R105			RK73GB2A104J	CHIP R	100K	J 1/10W	
R107			RK73GB2A104J	CHIP R	100K	J 1/10W	
R108			RK73GB2A473J	CHIP R	47K	J 1/10W	
R109			RK73GB2A104J	CHIP R	100K	J 1/10W	M1
R112,113			RK73GB2A473J	CHIP R	47K	J 1/10W	M1
R114			RK73GB2A333J	CHIP R	33K	J 1/10W	
R116			RK73GB2A104J	CHIP R	100K	J 1/10W	
R127			RK73GB2A222J	CHIP R	2.2K	J 1/10W	
R130,131			RK73EB2E472J	CHIP R	4.7K	J 1/4W	
R132-134			RK73EB2E101J	CHIP R	100	J 1/4W	
R135-137			RK73EB2E472J	CHIP R	4.7K	J 1/4W	
R140			RK73GB2A473J	CHIP R	47K	J 1/10W	
R141			RK73GB2A153J	CHIP R	15K	J 1/10W	
R142			RK73GB2A102J	CHIP R	1.0K	J 1/10W	
R143			RK73GB2A473J	CHIP R	47K	J 1/10W	
R144			RK73GB2A333J	CHIP R	33K	J 1/10W	
R145			RK73GB2A473J	CHIP R	47K	J 1/10W	
R146		∗	RK73GB2A821J	CHIP R	820	J 1/10W	
R147			RK73FB2B102J	CHIP R	1.0K	J 1/8W	
R148			RK73FB2B912J	CHIP R	9.1K	J 1/8W	
R149			RK73FB2B243J	CHIP R	24K	J 1/8W	
R150			RK73GB2A472J	CHIP R	4.7K	J 1/10W	
R151			RK73GB2A103J	CHIP R	10K	J 1/10W	
R152			RK73GB2A472J	CHIP R	4.7K	J 1/10W	
R153,154			RK73GB2A334J	CHIP R	330K	J 1/10W	
R155,156			RK73EB2E100J	CHIP R	10	J 1/4W	
R157			RK73EB2E4R7J	CHIP R	4.7	J 1/4W	

E : X838 **M1 :** KRC-Z965

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ELECTRIC UNIT(X25-923X-XX)

Ref.No.	Add	New	Parts No.	Description	Destination
R161,162			RK73FB2B471J	CHIP R 470 J 1/8W	
R163,164			RK73FB2B222J	CHIP R 2.2K J 1/8W	M1
R163,164			RK73FB2B223J	CHIP R 22K J 1/8W	E
R165,166			RK73FB2B103J	CHIP R 10K J 1/8W	M1
R167,168			RK73FB2B223J	CHIP R 22K J 1/8W	M1
R169,170		∗	RK73FB2B820J	CHIP R 82 J 1/8W	
R171,172			RK73FB2B471J	CHIP R 470 J 1/8W	
R173,174			RK73FB2B222J	CHIP R 2.2K J 1/8W	M1
R173,174			RK73FB2B223J	CHIP R 22K J 1/8W	E
R175,176			RK73FB2B103J	CHIP R 10K J 1/8W	M1
R177,178			RK73FB2B223J	CHIP R 22K J 1/8W	M1
R179,180		∗	RK73FB2B820J	CHIP R 82 J 1/8W	
R181,182			RK73FB2B471J	CHIP R 470 J 1/8W	M1
R183,184			RK73FB2B222J	CHIP R 2.2K J 1/8W	M1
R185,186			RK73FB2B103J	CHIP R 10K J 1/8W	M1
R187,188			RK73FB2B223J	CHIP R 22K J 1/8W	M1
R189,190		∗	RK73FB2B820J	CHIP R 82 J 1/8W	M1
R200			RK73GB2A221J	CHIP R 220 J 1/10W	
R202			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R203			RK73GB2A432J	CHIP R 4.3K J 1/10W	
R204			RK73GB2A100J	CHIP R 10 J 1/10W	
R210			RK73FB2B102J	CHIP R 1.0K J 1/8W	
R211			RK73GB2A223J	CHIP R 22K J 1/10W	
R212			RK73FB2B102J	CHIP R 1.0K J 1/8W	
R213			RK73GB2A223J	CHIP R 22K J 1/10W	
R216			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R217			RK73GB2A104J	CHIP R 100K J 1/10W	
R230			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R231			RK73GB2A223J	CHIP R 22K J 1/10W	
R242			RK73GB2A472J	CHIP R 4.7K J 1/10W	
R303		∗	RK73GB2A241J	CHIP R 240 J 1/10W	
R601			R92-0365-05	CHIP R 1.0K J 1/2W	
R603			RK73GB2A4R7J	CHIP R 4.7 J 1/10W	
R604			RK73EB2E121J	CHIP R 120 J 1/4W	
R605-607			RK73GB2A471J	CHIP R 470 J 1/10W	
R608			RK73FB2B122J	CHIP R 1.2K J 1/8W	
R609,610			RK73GB2A181J	CHIP R 180 J 1/10W	
R611,612			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R613			RK73GB2A272J	CHIP R 2.7K J 1/10W	
R614			RK73GB2A103J	CHIP R 10K J 1/10W	
R615			RK73GB2A203J	CHIP R 20K J 1/10W	
R616-619			RK73GB2A243J	CHIP R 24K J 1/10W	
R620			RK73GB2A333J	CHIP R 33K J 1/10W	
R621			RK73GB2A473J	CHIP R 47K J 1/10W	
R622-626			RK73GB2A104J	CHIP R 100K J 1/10W	
R627			RK73GB2A473J	CHIP R 47K J 1/10W	M1
R628-631			RK73EB2E5R6J	CHIP R 5.6 J 1/4W	
R632			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R801			RK73EB2E102J	CHIP R 1.0K J 1/4W	E
R802-804			RK73EB2E471J	CHIP R 470 J 1/4W	E
R807			RK73GB2A101J	CHIP R 100 J 1/10W	E
R808			RK73GB2A222J	CHIP R 2.2K J 1/10W	E
R809			RK73GB2A104J	CHIP R 100K J 1/10W	M1
R809			RK73GB2A225J	CHIP R 2.2M J 1/10W	E
R810			RK73GB2A104J	CHIP R 100K J 1/10W	

Ref.No.	Add	New	Parts No.	Description	Destination
R811			RK73GB2A102J	CHIP R 1.0K J 1/10W	
R812			RK73GB2A394J	CHIP R 390K J 1/10W	
R813			RK73GB2A101J	CHIP R 100 J 1/10W	
R815,816			RK73GB2A222J	CHIP R 2.2K J 1/10W	
R817			RK73GB2A471J	CHIP R 470 J 1/10W	
VR1,2			R32-0235-05	SEMI FIXED VARIABLE R. (10K)	
W1-8			R92-1252-05	CHIP R 0 OHM J 1/16W	E
W10-12			R92-1252-05	CHIP R 0 OHM J 1/16W	E
W14			R92-1252-05	CHIP R 0 OHM J 1/16W	E
S1			S74-0809-05	MICRO SWITCH	
D1			RM10ZLF	DIODE	
D2			SS14	DIODE	
D3			MA8056-M	ZENER DIODE	
D4			MA8062-L	ZENER DIODE	M1
D5		∗	MA8100-L	ZENER DIODE	
D6			MA4051(N)-M	ZENER DIODE	
D7			MA8056-M	ZENER DIODE	
D8			MA8047-M	ZENER DIODE	
D9			MA4110(N)-M	ZENER DIODE	M1
D10			MA4056(N)-M	ZENER DIODE	M1
D11			S1J	DIODE	
D11-14			1SR154-400	DIODE	
D13,14			S1J	DIODE	
D15			1SS133	DIODE	
D16			MA4068(N)-M	ZENER DIODE	
D17			MA4062(N)-M	ZENER DIODE	
D18,19			MA8068-M	ZENER DIODE	M1
D20			DAP202U	DIODE	
D20			MA142WA	DIODE	
D21			DA204U	DIODE	
D22-25			MA4062-L	ZENER DIODE	
D27			MA8062-L	ZENER DIODE	
D28,29			MA8068-M	ZENER DIODE	
D30			DAP202U	DIODE	
D30			MA142WA	DIODE	
D32			DAN202U	DIODE	
D32			MA142WK	DIODE	
D33-36			S1J	DIODE	
D33-36			1SR154-400	DIODE	
D38-41			1SR154-400	DIODE	
D39,40			S1J	DIODE	
D43			IMSA-6801	SURGE ABSORBER	
D51			MA4056(N)-M	ZENER DIODE	
D52-62			MA4062-L	ZENER DIODE	
D63			DA204U	DIODE	
D601			S1J	DIODE	
D601			1SR154-400	DIODE	
D602		∗	MA8036-H	ZENER DIODE	
D603		∗	MA8220-H	ZENER DIODE	
D801-804			MA4062-L	ZENER DIODE	E
D805			DA204U	DIODE	
IC1		∗	UPD703033GFA19	MI-COM IC	
IC2			TDA7407	ANALOGUE IC	
IC3			M5237ML	IC(VOLTAGE REGULATOR)	

E : X838 **M1 :** KRC-Z965

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ELECTRIC UNIT(X25-923X-XX)

Ref.No.	Add	New	Parts No.	Description	Destination
IC4			TDA7560	ANALOGUE IC	
IC5			TDA7401	ANALOGUE IC	M1
IC6			ICL7660SIBA	ANALOGUE IC	M1
IC7			TC74HC02AF	MOS-IC	
IC8			NJM4565M-TE2	ANALOGUE IC	
IC10-12			NJM4565M-TE2	ANALOGUE IC	M1
IC14			TDA7479D	ANALOGUE IC	
IC16			S-80837ANNP	MOS-IC	
IC20			BA3121F	IC(ISO AMP)	M1
IC21			BA3129F	IC(SWITCH)	M1
IC22			CXA2560Q	ANALOGUE IC	
IC25			BR24C02F-W	MEMORY IC	
IC26			BA6219BFP-Y	ANALOGUE IC	
Q2			2SC4081	TRANSISTOR	
Q3			2SA1037K	TRANSISTOR	
Q4			2SA2057	TRANSISTOR	
Q5			DTC144EUA	DIGITAL TRANSISTOR	
Q5			UN5213	DIGITAL TRANSISTOR	
Q6,7			DTA124EUA	DIGITAL TRANSISTOR	
Q6,7			UN5112	DIGITAL TRANSISTOR	
Q8			DTC144EUA	DIGITAL TRANSISTOR	
Q8			UN5213	DIGITAL TRANSISTOR	
Q10			2SA2057	TRANSISTOR	
Q11			2SC4081	TRANSISTOR	
Q12			DTC124EUA	DIGITAL TRANSISTOR	
Q12			UN5212	DIGITAL TRANSISTOR	
Q13			DTA124EUA	DIGITAL TRANSISTOR	
Q13			UN5112	DIGITAL TRANSISTOR	
Q14			DTA123JK	DIGITAL TRANSISTOR	
Q14			KRA105S	DIGITAL TRANSISTOR	
Q15			DTC144EUA	DIGITAL TRANSISTOR	
Q15			UN5213	DIGITAL TRANSISTOR	
Q16			2SB1443	TRANSISTOR	M1
Q17			2SC4081	TRANSISTOR	M1
Q18			2SA1576A	TRANSISTOR	M1
Q19			2SC4081	TRANSISTOR	M1
Q20			2SA1576A	TRANSISTOR	M1
Q21,22			2SC4081	TRANSISTOR	M1
Q23			2SA1576A	TRANSISTOR	M1
Q24			2SB1443	TRANSISTOR	
Q26			2SB1277(Q,R)	TRANSISTOR	
Q27			2SA1576A	TRANSISTOR	
Q28			DTA124EUA	DIGITAL TRANSISTOR	
Q28			UN5112	DIGITAL TRANSISTOR	
Q29			DTC124EUA	DIGITAL TRANSISTOR	
Q29			UN5212	DIGITAL TRANSISTOR	
Q30,31			2SC4081	TRANSISTOR	
Q32			DTA124EUA	DIGITAL TRANSISTOR	
Q32			UN5112	DIGITAL TRANSISTOR	
Q34			2SC4081	TRANSISTOR	
Q35			DTC124EUA	DIGITAL TRANSISTOR	
Q35			UN5212	DIGITAL TRANSISTOR	
Q36-40			DTC143TUA	DIGITAL TRANSISTOR	E
Q36-40			UN5216	DIGITAL TRANSISTOR	E
Q36-42			DTC143TUA	DIGITAL TRANSISTOR	M1
Q36-42			UN5216	DIGITAL TRANSISTOR	M1
Q43			DTC124EUA	DIGITAL TRANSISTOR	
Q43			UN5212	DIGITAL TRANSISTOR	
Q44			CPH3105	TRANSISTOR	
Q45			DTC124EUA	DIGITAL TRANSISTOR	
Q45			UN5212	DIGITAL TRANSISTOR	
Q46			CPH3105	TRANSISTOR	
Q47,48			DTA114YUA	DIGITAL TRANSISTOR	
Q47,48			UN5114	DIGITAL TRANSISTOR	
Q51			2SB1427	TRANSISTOR	
Q52			DTC143TUA	DIGITAL TRANSISTOR	
Q52			UN5216	DIGITAL TRANSISTOR	
Q101			DTA114YUA	DIGITAL TRANSISTOR	
Q101			UN5114	DIGITAL TRANSISTOR	
Q103			DTC124EUA	DIGITAL TRANSISTOR	M1
Q103			UN5212	DIGITAL TRANSISTOR	M1
Q476			2SB1548(P)	TRANSISTOR	
Q602			2SB1443	TRANSISTOR	
Q603			2SC4081	TRANSISTOR	
Q605			DTC114YUA	DIGITAL TRANSISTOR	
Q605			UN5214	DIGITAL TRANSISTOR	
TH1			PTH9C42BD471Q	POSITIVE RESISTOR	
A1		∗	W02-3341-05	ELECTRIC CIRCUIT MODULE	
FE1		∗	X86-3532-70	TUNER UNIT	

DAUGHTER UNIT(X89-2532-71)

CN1			E40-9488-05	SOCKET FOR PIN ASSY (20P)			
J1			E58-0865-05	RECTANGULAR RECEPTACLE (16P)			
R1			RK73EB2E471J	CHIP R	470	J 1/4W	
R2			RK73EB2E241J	CHIP R	240	J 1/4W	
R3			RK73EB2E471J	CHIP R	470	J 1/4W	
R4-6			RK73EB2E241J	CHIP R	240	J 1/4W	
R7			RK73EB2E471J	CHIP R	470	J 1/4W	
R8			RK73EB2E511J	CHIP R	510	J 1/4W	
R9			RK73EB2E471J	CHIP R	470	J 1/4W	
R10,11			RK73EB2E221J	CHIP R	220	J 1/4W	
S1			S70-0856-05	TACT SWITCH			

CASSTTE MECHANISM ASSY(D40-1147-05)

1	2B		A10-4630-08	CHASSIS ASSY
4	2B		D10-4375-08	SLIDER
5	3A		D13-1494-08	GEAR
6	3A		D13-1495-08	GEAR
7	3A		D13-1496-08	GEAR
9	1B		D10-4376-08	ARM
10	2B		J90-0948-08	GUID
11	2B		D15-0919-08	PULLEY
12	2B		D13-1497-08	GEAR
15	2B		J21-9458-08	MOUNTING HARDWARE
17	2B		G02-1332-08	FLAT SPRING
20	2A		D13-1498-08	RACK (GEAR)
21	1A		D10-4377-08	LEVER
22	3B		D10-4378-08	LEVER
23	2A		D10-4379-08	LEVER

E : X838 **M1 :** KRC-Z965

⚠ indicates safety critical components.

PARTS LIST

∗ New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohane Parts No. werden nicht geliefert.

CASSTTE MECHANISM ASSY(D40-1147-05)

Ref.No.	Add	New	Parts No.	Description	Destination
24	1A		D10-4380-08	LEVER	
25	1A		G01-2960-08	TENSION COIL SPRING	
26	3A		D13-1499-08	GEAR	
27	3A		D10-4381-08	ARM	
30	2B		D10-4382-08	ARM ASSY	
31	2B		D10-4383-08	ARM ASSY	
45	2A		J11-0632-08	CLAMPER	
48	3B		D01-0613-08	FLYWHEEL ASSY	
49	3B		D16-0616-08	BELT	
52	1B		D10-4385-08	ARM	
53	1B		J19-4953-08	HOLDER	
54	1A		G11-1861-08	CUSHION	
56	1B		D10-4386-08	ARM ASSY	
57	1B		G01-2962-08	TENSION COIL SPRING	
58	1B		D10-4387-08	SLIDER	
65	2A		B09-0522-08	CAP	
66	2A		G01-2963-08	COMPRESSION COIL SPRING	
67	2A		D03-0314-08	REEL DISK ASSY	
76	2A		J19-5025-08	CORD CLAMPER	
91	3A		J26-4043-08	PRINTED WIRING BOARD ASSY	
92	3A		E39-0424-08	FLAT CABLE	
93	3A		J69-0511-08	ADHESIVE DOUBLE-COATED TAPE	
94	2A		T95-0245-08	PHOTO COUPLER	
95	2A		E39-0425-08	LEAD WIRE	
A	3A		N09-4324-08	MACHINE SCREW	
B	2A		N19-2136-08	FLAT WASHER	
C	2B		N09-4325-08	MACHINE SCREW	
D	2A		N09-4326-08	MACHINE SCREW	
E	2A		N09-4058-08	SEMS (MACHINE SCREW)	
F	2B		N19-2038-08	FLAT WASHER	
G	2B		N19-2136-08	FLAT WASHER	
H	2B		N19-2137-08	FLAT WASHER	
J	3B		N19-2138-08	FLAT WASHER	
K	3B		N09-4327-08	SCREW	
N	1B		N19-2139-08	FLAT WASHER	
CM1	1A		T42-1002-08	MOTOR ASSY (MAIN)	
CM2	1A		T42-1001-08	MOTOR ASSY (SUB)	
HD1	2B		T31-0230-08	PLAYBACK HEAD	

Ref.No.	Add	New	Parts No.	Description	Destination

E : X838 **M1 :** KRC-Z965

⚠ indicates safety critical components.

KRC-Z965,X838

SPECIFICATIONS

● **KRC-Z965**

FM Section
- Frequency Range (Frequency Step) 87.5MHz-108.0MHz (50kHz)
- Usable Sensitivity (S/N:26dB) 0.7μV/75Ω
- Quieting Sensitivity (S/N:46dB) 1.6μV/75Ω
- Frequency Response (±3.0dB) 30Hz-15kHz
- S/N Ratio ..... 65dB (MONO)
- Selectivity (DIN) ..... ≧80dB (±400kHz)
- Stereo Separation 35dB (1kHz)

MW Section
- Frequency Range (Frequency Step) 531kHz-1611kHz (9kHz)
- Usable Sensitivity (S/N:20dB) 25μV

LW Section
- Frequency Range 153kHz-281kHz
- Usable Sensitivity (S/N:20dB) 45μV

CASSETTE Section
- Tape Speed ..... 4.76cm/sec.
- Wow & Flutter (WRMS) 0.08%
- Frequency Response (±3.0dB) 30Hz-20kHz (70μs)
- Separation 43dB (1kHz)
- S/N Ratio Dolby NR OFF 57dB
  Dolby B ON 65dB

AMPLIFIER Section
- Preout Level/Load -Unbalansed ..... 4500mV/10kΩ (CD/CD-CH)
- Preout Impedance ..... ≦80Ω
- Maximum Power ..... 50W×4
- Full Bandwidth Power (at less then 1%THD) ..... 22W×4

AUX Input
- Frequency Response ..... 20Hz-20kHz (±1dB)
- Maximum Input Level 1.2V
- Input Impedance ..... ≧44kΩ

TONE Section
- Bass ..... 100Hz±10dB
- Middle ..... 1kHz±10dB
- Treble ..... 10kHz±10dB

General
- Operating Voltage (11V-16V allowable) 14.4V
- Current Consumption 10A
- Installation Size (W) x (H) x (D) ..... 180mm x 50mm x 159mm
- Weight 1.4kg

● **X838**

FM Section
- Frequency Range (Frequency Step) 87.5MHz-108.0MHz (50kHz)
- Usable Sensitivity (S/N:26dB) 0.7μV/75Ω
- Quieting Sensitivity (S/N:46dB) 1.6μV/75Ω
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CASSETTE Section
- Tape Speed ..... 4.76cm/sec.
- Wow & Flutter (WRMS) 0.08%
- Frequency Response (±3.0dB) 30Hz-20kHz (70μs)
- Separation 43dB (1kHz)
- S/N Ratio Dolby NR OFF 57dB
  Dolby B ON 65dB

AMPLIFIER Section
- Preout Level/Load -Unbalansed ..... 1800mV/10kΩ (CD/CD-CH)
- Preout Impedance ..... ≦600Ω
- Maximum Power ..... 50W×4
- Power (DIN45324, +B=14.4V) ..... 30W×4

TONE Section
- Bass ..... 100Hz±10dB
- Middle ..... 1kHz±10dB
- Treble ..... 10kHz±10dB

General
- Operating Voltage (11V-16V allowable) 14.4V
- Current Consumption 10A
- Installation Size (W) x (H) x (D) ..... 180mm x 50mm x 159mm
- Weight 1.4kg

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

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